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Set	Items	Description
Set	Items	Description
S1	513	(GONORRHOEAE OR GONOCOCC?) AND EPITOP?
S2	54	S1 AND (PEPTIDOMIMET? OR MIMETIC? OR MIMEOTOP? OR MIMIC?)
S3	17	S2 AND (CYSTEINE OR CYS OR C(W)TERMIN?)
S4	89	(GONORRHOEAE OR GONOCOCC?) (5N)EPITOP?
S5	10	S4 AND (PEPTIDOMIMET? OR MIMETIC? OR MIMEOTOP? OR MIMIC?)
S6	4486	(CYSTEINE OR CYS OR C(W)TERMIN?) AND (PEPTIDOMIMET? OR MIM- ETIC? OR MIMEOTOP? OR MIMIC?)
S7	34	S6 AND (GONORRHOEAE OR GONOCOCC?)
S8	43	S3 OR S5 OR S7
S9	27	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

-key terms

9/3,AB/1 (Item 1 from file: 35)  
DIALOG(R)File 35:Dissertation Abs Online  
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01874833 AADAAI3043318

Peptide \*mimic\*\*\* elicits bactericidal antibody response against an  
oligosaccharide \*epitope\*\*\* of Neisseria \*gonorrhoeae\*\*\*

Author: Ngampasutadol, Jutamas

Degree: Ph.D.

Year: 2002

Corporate Source/Institution: Boston University.(0017)

Source: VOLUME 63/02-B OF DISSERTATION ABSTRACTS INTERNATIONAL.

PAGE 729. 220 PAGES

ISBN: 0-493-57096-9

Gonorrhea, a sexually transmitted disease, is a major public health  
problem worldwide; the development of an effective vaccine might serve to  
prevent the serious sequelae of gonococcal infection while also controlling  
transmission of HIV in persons who are coinfectd with HIV and

*Neisseria gonorrhoeae*. We have identified a carbohydrate epitope (called the 2C7 oligosaccharide [OS] epitope, defined by reactivity with monoclonal antibody [mAb] 2C7) on gonococcal lipooligosaccharide (LOS), which is present in 95% of gonococcal strains as they exist in vivo. This structure may represent a potential candidate for an anti-gonococcal vaccine. In humans, the 2C7 OS epitope elicits a significant antibody response that mediates both killing and opsonophagocytosis either after natural infection (4.4-17-fold increase in IgG antibody) or following vaccination with gonococcal outer membrane preparations that contain the antigen (44.5-fold increase in IgG antibody). Because oligosaccharides are poor immunogens usually resulting in a T-cell independent response, we approached the design of a vaccine candidate by developing peptides that \*mimic\*\* the 2C7 epitope, and which we believed might elicit a T-cell dependent response when used as an immunogen.

Using a random peptide library expressed by *E. coli* flagella, we identified a consensus sequence that bound mAb 2C7. A multiple antigen peptide (MAP) containing this consensus sequence was constructed and it was shown to inhibit binding of mAb 2C7 to LOS in a dose-responsive manner, indicating the sharing of antigenic determinants with LOS.

To investigate the immunogenicity of this peptide, we immunized 30 mice with two doses of MAP (50 µg). Twelve of the 30 mice (40%) showed an IgG anti-LOS antibody responses above baseline. The mean IgG anti-LOS antibody concentration in responder mice was almost 10-fold greater (6.8 ± 3.3 µg/ml) than in the negative control group (0.717 ± 0.026 µg/ml) or in the non-responder mice (0.725 ± 0.026 µg/ml). IgG anti-LOS antibody elicited by MAP immunization possessed direct complement dependent bactericidal activity against numerous \*gonococcal\*\* strains that express the 2C7 \*epitope\*\*, even those that resist killing because of their ability to bind complement (down)regulatory proteins. These data suggest that a peptide can act as a molecular \*mimic\*\* of a carbohydrate epitope and may form the basis for the development of a vaccine candidate(s) for human immunization against *N. gonorrhoeae*.

9/3,AB/2 (Item 2 from file: 35)  
 DIALOG(R)File 35:Dissertation Abs Online  
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01413135 AADAAI9514617  
 ANTI-IDIOTOPE ANTIBODY AS A SURROGATE VACCINE IMMUNOGEN FOR  
 LIPOOLIGOSACCHARIDE (LOS) OF NEISSERIA GONORRHOEAE  
 Author: GULATI, SUNITA  
 Degree: SC.D.  
 Year: 1993  
 Corporate Source/Institution: BOSTON UNIVERSITY (0017)  
 Source: VOLUME 56/01-B OF DISSERTATION ABSTRACTS INTERNATIONAL.  
 PAGE 164. 149 PAGES

Murine monoclonal antibody (mAb) 2C7 (Ab1) recognizes a widely conserved, lipooligosaccharide (LOS)-derived or associated oligosaccharide (OS) \*epitope\*\* of *Neisseria gonorrhoeae*\*\*. mAb 2C7 is bactericidal (with murine complement) against gonococcal strains that are sensitive (serum sensitive (SS)) or resistant (serum resistant (SR)) to killing by normal human serum, although less so against SR *N. gonorrhoeae*. mAb 2C7 promotes ingestion of both SS and SR strains (bearing the 2C7 epitope) by human polymorphonuclear leukocytes (PMNs). The addition of complement enhances ingestion minimally.

Monoclonal anti-idiotope antibody CA1 (Ab2) (i.e. a surrogate image of the antibody combining site of Ab 1), an IgM $\kappa$ , was produced by immunization of mice with hybridoma cells producing mAb 2C7. Syngeneic (mice) and xenogeneic (rabbits) animals were immunized with mAb CA1, to assess whether this mAb represented an Ab2 $\beta$  anti-idiotope or the surrogate image of the nominal antigen, gonococcal OS. Anti-anti-idiotope antibodies (Ab3) raised in each species recognized \*gonococcal\*\*\* LOS, that manifested the OS \*epitope\*\*\*. Functionally, Ab3 (from each species) exhibited complement dependent bactericidal activity against both SS and SR strains. The Ab3 killing activity against an SS N. gonorrhoeae was 10 fold greater in mice and 100 fold greater in rabbits than that elicited by immunization with LOS. A comparable bactericidal antibody response was induced against 2C7 \*epitope\*\*\* bearing SR \*gonococcal\*\*\* strains in both species. In opsonophagocytic assays, using human polymorphonuclear cells (PMNs), rabbit Ab3 enhanced the binding and ingestion of SS and SR strains bearing the 2C7 epitope.

These data indicate that mAb CA1 (Ab2) is an Ab2 $\beta$  which \*mimics\*\*\* a LOS derived OS \*epitope\*\*\* on N. \*gonorrhoeae\*\*\* recognized by mAb 2C7. CA1 immunization induced antibodies directed against gonococcal LOS, both in syngeneic and xenogeneic systems. These antibodies were opsonic and bactericidal and facilitated phagocytosis of N. gonorrhoeae. Therefore, the anti-idiotope CA1, may represent a possible candidate antigen for a gonococcal vaccine that elicits a functional antibody response.

9/3,AB/3 (Item 1 from file: 144)  
 DIALOG(R)File 144:Pascal  
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12820313 PASCAL No.: 97-0036743

Experimental immunization with a monoclonal anti-idiotope antibody that \*mimics\*\*\* the Neisseria \*gonorrhoeae\*\*\* lipooligosaccharide \*epitope\*\*\* 2C7

GULATI S; MCQUILLEN D P; SHARON J; RICE P A

Maxwell Finland Laboratory for Infectious Diseases, Department of Medicine, Boston Medical Center, United States; Department of Pathology and Laboratory Medicine, Boston University School of Medicine, Boston, Massachusetts, United States; Hubert Humphrey Cancer Research Center, Boston University School of Medicine, Boston, Massachusetts, United States

Journal: The Journal of infectious diseases, 1996, 174 (6) 1238-1248

Language: English

An anti-idiotope monoclonal antibody (MAB), called CA1 (Ab2), was produced in mice against MAb 2C7, which recognizes a widely in vivo-expressed \*gonococcal\*\*\* lipooligosaccharide (LOS) \*epitope\*\*\*. Mice immunized with MAb CA1 initially had a 2.5-fold increase in IgG (12-fold after a booster) but no increase in IgM anti-LOS (Ab1') antibody. Control mice immunized with LOS had a 4.5-fold rise in IgG and 4-fold rise in IgM anti-LOS antibody. In rabbits, MAb CA1 elicited a 9-fold rise in IgG and a 3.3-fold rise in IgM anti-LOS (Ab1') antibody. Ab1' antibody bactericidal activity was 1-2 logs greater than that produced by immunization with LOS. Ab1' mediated complete human polymorphonuclear leukocyte phagocytosis of 2C7 epitope-positive (but not 2C7 \*epitope\*\*\*-negative) \*gonococci\*\*\*. MAb CA1 acts as a molecular surrogate (Ab2 beta) for the nominal LOS antigen and may form the basis for vaccine candidates for human immunization against Neisseria gonorrhoeae.

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09/699224

9/3,AB/4 (Item 1 from file: 440)  
DIALOG(R)File 440:Current Contents Search(R)  
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06930329 References: 49

TITLE: IDENTIFICATION OF THE \*GONOCOCCAL\*\*\* GLMU GENE ENCODING THE ENZYME  
N-ACETYLGLUCOSAMINE 1-PHOSPHATE URIDYLTRANSFERASE INVOLVED IN THE  
SYNTHESIS OF UDP-GLCNAC  
AUTHOR(S): ULLRICH J; VANPUTTEN JPM (Reprint)  
CORPORATE SOURCE: NIAID, ROCKY MT LABS, LMSF, 903 S 4TH ST/HAMILTON//MT/59840  
(Reprint); NIAID, ROCKY MT LABS, LMSF/HAMILTON//MT/59840; MAX PLANCK INST  
BIOL, INFEKT BIOL ABT/D-72076 TUBINGEN//GERMANY/  
PUBLICATION: JOURNAL OF BACTERIOLOGY, 1995, V177, N23 (DEC), P6902-6909  
GENUINE ARTICLE#: TG224  
ISSN: 0021-9193  
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: In searching for the \*gonococcal\*\*\* sialyltransferase gene(s), we  
cloned a 3.8-kb DNA fragment from \*gonococcus\*\*\* strain MS11 that  
hybridized with the oligonucleotide JU07, which was derived from the  
conserved \*C\*\*\* \*terminus\*\*\* of the sialyl motif present in mammalian  
sialyltransferases. Sequencing of the fragment revealed four putative open  
reading frames (ORFs), one of which (ORF-1) contained a partial sialyl  
motif including the amino acid sequence VGSKT, which is highly conserved  
among sialyltransferases. The gene was flanked by two inverted repeats  
containing the neisserial DNA uptake sequence and was preceded by a  
putative sigma 54 promoter, Database searches, however, revealed a high  
degree of homology between ORF-1 and the N-acetylglucosamine 1-phosphate  
uridyltransferase (GlmU) of Escherichia coli and Bacillus subtilis and not  
with any known sialyltransferase. This homology was further established by  
the successful complementation of an orf-1 mutation by the E. coli glmU  
gene, Enzyme assays demonstrated that ORF-1 did not possess  
sialyltransferase activity but \*mimicked\*\*\* GlmU function catalyzing the  
conversion of N-acetylglucosamine 1-phosphate into UDP-N-acetylglucosamine,  
which is a key metabolite in the syntheses of lipopolysaccharide,  
peptidoglycan, and sialic acids.

9/3,AB/5 (Item 2 from file: 440)  
DIALOG(R)File 440:Current Contents Search(R)  
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03559305 References: 23

TITLE: LIPOOLIGOSACCHARIDES (LOS) OF SOME HAEMOPHILUS SPECIES \*MIMIC\*\*\*  
HUMAN GLYCOPHINGOLIPIDS, AND SOME LOS ARE SIALYLATED  
AUTHOR(S): MANDRELL RE; MCLAUGHLIN R; ABUKWAIK Y; LESSE A; YAMASAKI R;  
GIBSON B; SPINOLA SM; APICELLA MA (Reprint)  
CORPORATE SOURCE: SUNY BUFFALO, DEPT MED/BUFFALO//NY/14215 (Reprint); SUNY  
BUFFALO, DEPT MED/BUFFALO//NY/14215; SUNY BUFFALO, DEPT  
MICROBIOL/BUFFALO//NY/14215; SUNY BUFFALO, DEPT PHARMACOL &  
THERAPEUT/BUFFALO//NY/14215; UNIV CALIF SAN FRANCISCO, CTR IMMUNOCHEM/SAN  
FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO, DEPT LAB MED/SAN  
FRANCISCO//CA/94143; UNIV CALIF SAN FRANCISCO, DEPT PHARMACEUT CHEM/SAN  
FRANCISCO//CA/94143  
PUBLICATION: INFECTION AND IMMUNITY, 1992, V60, N4 (APR), P1322-1328  
GENUINE ARTICLE#: HK753  
LANGUAGE: ENGLISH DOCUMENT TYPE: ARTICLE

ABSTRACT: The lipooligosaccharides (LOS) of strains of *Haemophilus ducreyi*, *Neisseria gonorrhoeae*, *Neisseria meningitidis*, and *Neisseria lactamica* contain epitopes that are antigenically and structurally similar to carbohydrates present in human glycosphingolipids. LOS from strains of *Haemophilus influenzae* and *H. influenzae* biogroup *aegyptius* were tested for the binding of monoclonal antibodies (MAbs) that bind to human glycosphingolipids possessing Gal-beta-1-4GlcNAc (MAb 3F11) and Gal-alpha-1-4Gal-beta-1-4Glc (MAb anti-P(k)). In solid-phase radioimmunoassays, the LOS of 18 of 19 *H. influenzae* type b (Hib), 8 of 19 nontypeable *H. influenzae*, and 10 of 20 *H. influenzae* biogroup *aegyptius* strains bound MAb anti-P(k). The LOS of 13 of 19 Hib, 10 of 16 nontypeable *H. influenzae*, and 2 of 18 *H. influenzae* biogroup *aegyptius* strains bound MAb 3F11. Neuraminidase treatment of the strains increased the binding of MAb 3F11 by more than twofold in 47% of the *H. influenzae* strains, suggesting that sialic acid occluded the LOS structure recognized by MAb 3F11. The material released from neuraminidase-treated Hib LOS was confirmed to be sialic acid by high-performance anion-exchange chromatography. A recombinant plasmid containing genes involved in Hib LOS biosynthesis directed the expression (assembly) of the 3F11 epitope in *Escherichia coli*. These studies demonstrate that *H. influenzae* and *H. influenzae* biogroup *aegyptius* express at least two LOS epitopes that are similar to those present in human glycosphingolipids. Sialic acid was present on the LOS of some *H. influenzae* strains and prevented the binding of MAb 3F11 to its epitope. The oligosaccharide portion of sialylated LOS may also resemble sialylated oligosaccharides present in human glycosphingolipids (gangliosides).

9/3,AB/6 (Item 1 from file: 348)  
 DIALOG(R)File 348:EUROPEAN PATENTS  
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01535141

Process for the development of binding mini-proteins  
 Verfahren zur Entwicklung bindender Miniproteine  
 Procédé de développement de mini-proteines de liaison  
 PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1279731 A1 030129 (Basic)

APPLICATION (CC, No, Date): EP 2002015673 920227;

PRIORITY (CC, No, Date): US 664989 910301

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; MC; NL;  
 SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 575485 (EP 92908057)

INTERNATIONAL PATENT CLASS: C12N-015/10

## ABSTRACT EP 1279731 A1

The invention concerns a process for identifying proteins with a desired binding activity against a target, said process comprising

(a) screening, for binding activity against said target, a population of genetic packages, each package displaying a potential binding domain, said population collectively displaying a plurality of different potential binding domains, said domains differing at one or more variable amino acid positions,

each said potential binding domain being a micro-protein sequence of less than forty amino acids and having a single disulfide bond between a first amino acid position and a second amino acid position thereof, the amino acids at said first and second positions being invariant cysteines in the potential binding domains displayed by said population, and

(b) identifying a protein having the desired binding activity against said target.

ABSTRACT WORD COUNT: 133

## NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200305	3736
SPEC A	(English)	200305	29915
Total word count - document A			33651
Total word count - document B			0
Total word count - documents A + B			33651

9/3,AB/7 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01437766

S-adenosyl methionine regulation of metabolic pathways and its use in diagnosis and therapy

S-Adenosyl-Methionin-Regulierung in Metabolismen und deren Verwendung in der Diagnostik und Therapie

Regulation de la S-adenosyl methionine de voies metaboliques et application au diagnostic et a la therapie

## PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1221615 A2 020710 (Basic)

APPLICATION (CC, No, Date): EP 2002005785 960425;

PRIORITY (CC, No, Date): US 428963 950425; US 476447 950607

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

09/699224

RELATED PARENT NUMBER(S) - PN (AN):

EP 824345 (EP 96915362)

INTERNATIONAL PATENT CLASS: G01N-033/50; A61P-043/00

ABSTRACT EP 1221615 A2

Described is a method to identify a therapeutic composition or protocol which ameliorates a disease or undesired condition in a subject, which method relies upon recognition of the existence of, and the interconnections between, eight SAM pathways shown in Figures 2 - 9, and which acts to restore said SAM pathways toward normality.

ABSTRACT WORD COUNT: 54

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200228	1701
SPEC A	(English)	200228	37650
Total word count - document A			39351
Total word count - document B			0
Total word count - documents A + B			39351

9/3,AB/8 (Item 3 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01406119

High resolution crystal structure of the ribosome and design of protein synthesis inhibitors

Kristallstruktur von Ribosomen und Proteinsynthese-Inhibitoren

Structure cristallographique de Ribosome a haute resolution et inhibiteurs de la synthese proteique

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1188769 A2 020320 (Basic)  
EP 1188769 A3 020710

APPLICATION (CC, No, Date): EP 2001306825 010809;

PRIORITY (CC, No, Date): US 635708 000809; US 223977 P 000809; US 306996 P  
010720; US 309281 P 010801; US 922251 P 010803

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE; TR

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C07K-014/215; G06F-017/50; G06F-019/00

ABSTRACT EP 1188769 A2



09/699224

The invention provides methods for producing high resolution crystals of ribosomes and ribosomal subunits as well as crystals produced by such methods. The invention also provides high resolution structures of ribosomal subunits either alone or in combination with protein synthesis inhibitors. The invention provides methods for identifying ribosome-related ligands and methods for designing ligands with specific ribosome-binding properties as well as ligands that may act as protein synthesis inhibitors. Thus, the methods and compositions of the invention may be used to produce ligands that are designed to specifically kill or inhibit the growth of any target organism.

ABSTRACT WORD COUNT: 98

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200212	3343
SPEC A	(English)	200212	45431
Total word count - document A			48774
Total word count - document B			0
Total word count - documents A + B			48774

9/3,AB/9 (Item 4 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01367830

DNA Diagnostics based on mass spectrometry

DNA-Diagnostik mittels Massenspektrometrie

Diagnostics de l'ADN fondes sur la spectrometrie de masse

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PATENT (CC, No, Kind, Date): EP 1164203 A2 011219 (Basic)  
EP 1164203 A3 020313

APPLICATION (CC, No, Date): EP 2001203019 971106;

PRIORITY (CC, No, Date): US 744481 961106; US 746036 961106; US 746055  
961106; US 744590 961106; US 786988 970123; US 787639 970123; US 933792  
970919; US 947801 971008

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;  
MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

RELATED PARENT NUMBER(S) - PN (AN):

EP 954612 (EP 97945641)  
INTERNATIONAL PATENT CLASS: C12Q-001/68; C07H-021/00; C07F-009/24

## ABSTRACT EP 1164203 A2

Fast and highly accurate mass spectrometry-based processes for detecting a particular nucleic acid sequence in a biological sample are provided. Depending on the sequence to be detected, the processed can be used, for example, to diagnose a genetic disease or chromosomal abnormality; a predisposition to a disease or condition, infection by a pathogenic organism, or for determining identity or heredity.

A method and apparatus for creating multiple branch wells from a parent well is disclosed. A multiple branching sub is provided for placement at a branching node of a well. Such sub includes a branching chamber and a plurality of branching outlet members. The outlet members during construction of the branching sub, have previously been distorted into oblong shapes so that all of the branching outlet members fit within an imaginary cylinder which is coaxial with and substantially the same radius as the branching chamber. After deployment of the branching sub via a parent casing in the well, a forming tool is lowered to the interior of the sub. The outlet members are extended outwardly by the forming tool and simultaneously formed into substantially round tubes. Next, each outlet member is plugged with cement, after which each branch well is drilled through a respective outlet member. If desired, each branch may be lined with casing and sealed to a branching outlet by means of a casing hanger. A manifold placed in the branching chamber controls the production of each branch well to the parent well.

ABSTRACT WORD COUNT: 246

## NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200151	2598
SPEC A	(English)	200151	57421
Total word count - document A			60019
Total word count - document B			0
Total word count - documents A + B			60019

9/3,AB/10 (Item 5 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01300282

Actinobacillus pleuropneumoniae outer membrane protein and its use  
Protein de ausseren Membran von Actinobacillus pleuropneumoniae und dessen  
Verwendung  
Proteine de la membrane externe de Actinobacillus pleuropneumoniae et ses  
utilisations

## PATENT ASSIGNEE:

UNIVERSITEIT GENT, (1537370), Sint-Pietersnieuwstraat 25, 9000 Gent, (BE)  
, (Applicant designated States: all)

## INVENTOR:

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09/699224

LEGAL REPRESENTATIVE:

De Clercq, Ann (87752), De Clercq, Brants & Partners cv., Edgard  
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PATENT (CC, No, Kind, Date): EP 1113074 A1 010704 (Basic)  
APPLICATION (CC, No, Date): EP 99204612 991230;  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: C12N-015/31; C07K-014/285; C12N-001/21;  
C07K-016/12; A61K-039/102; C12Q-001/68; G01N-033/569; C12N-001/21;  
C12R-1:21

ABSTRACT EP 1113074 A1

The present invention relates to a new Actinobacillus pleuropneumoniae  
outer membrane protein having a molecular weight of about 55 kDa and  
having an N-terminal sequence as shown in SEQ ID NO 1. The invention also  
relates to nucleic acids encoding said protein and the use of both types  
of molecules for the treatment and prevention of pleuropneumonia  
infections in pigs.

ABSTRACT WORD COUNT: 61

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200127	1111
SPEC A	(English)	200127	9191
Total word count - document A			10302
Total word count - document B			0
Total word count - documents A + B			10302

9/3,AB/11 (Item 6 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01299185

PEPTIDE \*MIMICS\*\*\* OF CONSERVED \*GONOCOCCAL\*\*\* \*EPITOPES\*\*\* AND METHODS AND  
COMPOSITIONS USING THEM

KONSERVIERTE GONOKOKKENEPITOPE NACHAHMENDE PEPTIDE, DEREN ZUSAMMENSETZUNGEN  
UND VERWENDUNG

MIMETIQUES PEPTIDIQUES D'\*EPITOPES\*\*\* \*GONOCOCCIQUES\*\*\* CONSERVES,  
TECHNIQUES ET COMPOSITIONS LES UTILISANT

PATENT ASSIGNEE:

Rice, Peter A., (3024480), 55 Norfolk Road, Chestnut Hill, MA 02167, (US)  
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(Applicant designated States: all)

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PATENT (CC, No, Kind, Date):

WO 2001032692 010510

APPLICATION (CC, No, Date): EP 2000973980 001027; WO 2000US29749 001027

PRIORITY (CC, No, Date): US 162491 P 991029

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;

09/699224

LU; MC; NL; PT  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: C07K-014/22; C07K-007/08; A61K-039/095;  
A61K-039/00  
LANGUAGE (Publication,Procedural,Application): English; English; English

9/3,AB/12 (Item 7 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01270274  
Lawsonia intracellularis proteins, and related methods and materials  
Lawsonia intracellularis Proteine sowie Methoden und Materialien die diese  
verwenden  
Proteines de Lawsonia intracellularis et procedes et materiaux relatifs a  
ces proteines  
PATENT ASSIGNEE:  
Pfizer Products Inc., (2434221), Eastern Point Road, Groton, Connecticut  
06340, (US), (Applicant designated States: all)  
INVENTOR:  
Rosey, Everett Lee, Pfizer Central Research, Eastern Point Road, Groton,  
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LEGAL REPRESENTATIVE:  
Eddowes, Simon et al (87482), Urquhart-Dykes & Lord, 30 Welbeck Street,  
London W1G 8ER, (GB)  
PATENT (CC, No, Kind, Date): EP 1094070 A2 010425 (Basic)  
EP 1094070 A3 020109  
APPLICATION (CC, No, Date): EP 2000309125 001017;  
PRIORITY (CC, No, Date): US 160922 P 991022  
DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE  
EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI  
INTERNATIONAL PATENT CLASS: C07K-014/205; C12N-015/31

ABSTRACT EP 1094070 A2  
Isolated polynucleotide molecules contain a nucleotide sequence that  
encodes a L. intracellularis HtrA, PonA, HypC, LysS, YcfW, ABC1, or  
Omp100 protein, a substantial portion of the sequences, or a homologous  
sequence. Related polypeptides, immunogenic compositions and assays are  
described.

ABSTRACT WORD COUNT: 40

NOTE:

Figure number on first page: 1

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200117	864
SPEC A	(English)	200117	25111
Total word count - document A			25975
Total word count - document B			0
Total word count - documents A + B			25975

9/3,AB/13 (Item 8 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

09/699224

01267464

Compositions and methods for treating or preventing inflammatory diseases  
Zubereitungen und Verfahren zur Behandlung oder Pravention von  
entzündlichen Erkrankungen

Compositions et methodes pour traiter ou prevenir les maladies  
inflammatoires

PATENT ASSIGNEE:

Angiotech Pharmaceuticals, Inc., (1910123), 6660 N.W. Marine Drive,  
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States: all)

INVENTOR:

Hunter, William L., 135 Alexander Street, Vancouver, B.C. V6A 1B8, (CA)

LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance (61531), FORRESTER & BOEHMERT  
Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1092433 A2 010418 (Basic)  
EP 1092433 A3 010912

APPLICATION (CC, No, Date): EP 2000123534 971202;

PRIORITY (CC, No, Date): US 32215 P 961202; US 63087 P 971024

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;  
MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 941089 (EP 97945697)

INTERNATIONAL PATENT CLASS: A61K-031/335; A61K-033/08; A61K-033/16;  
A61K-031/22; A61K-031/425; A61K-031/36; A61K-031/70

ABSTRACT EP 1092433 A2

The present invention provides methods for treating or preventing  
inflammatory diseases such as psoriasis or multiple sclerosis, comprising  
the step of delivering to the site of inflammation an anti-microtubule  
agent, or analogue or derivative thereof.

ABSTRACT WORD COUNT: 36

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200116	897
SPEC A	(English)	200116	49724
Total word count - document A			50621
Total word count - document B			0
Total word count - documents A + B			50621

9/3,AB/14 (Item 9 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

01264788

Compositions and methods for treating or preventing inflammatory diseases  
Zubereitungen und Verfahren zur Behandlung oder Pravention von  
entzündlichen Erkrankungen

Compositions et methodes pour traiter ou prevenir les maladies  
inflammatoires

PATENT ASSIGNEE:

Angiotech Pharmaceuticals, Inc., (1910123), 6660 N.W. Marine Drive,

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INVENTOR:

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LEGAL REPRESENTATIVE:

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Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 1090637 A2 010411 (Basic)

EP 1090637 A3 010912

APPLICATION (CC, No, Date): EP 2000123537 971202;

PRIORITY (CC, No, Date): US 32215 P 961202; US 63087 P 971024

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 941089 (EP 97945697)

INTERNATIONAL PATENT CLASS: A61K-031/335; A61K-033/08; A61K-033/16;

A61K-031/22; A61K-031/425; A61K-031/36; A61K-031/70

ABSTRACT EP 1090637 A2

The present invention provides methods for treating or preventing inflammatory diseases such as psoriasis or multiple sclerosis, comprising the step of delivering to the site of inflammation an anti-microtubule agent, or analogue or derivative thereof.

ABSTRACT WORD COUNT: 36

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200115	897
SPEC A	(English)	200115	49749
Total word count - document A			50646
Total word count - document B			0
Total word count - documents A + B			50646

9/3,AB/15 (Item 10 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01235101

Compositions and methods for treating or preventing inflammatory diseases  
Zubereitungen und Verfahren zur Behandlung oder Pravention von  
entzündlichen Erkrankungen

Compositions et methodes pour traiter ou prevenir des maladies  
inflammatoires

PATENT ASSIGNEE:

Angiotech Pharmaceuticals, Inc., (1910123), 6660 N.W. Marine Drive,  
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States: all)

INVENTOR:

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PATENT (CC, No, Kind, Date): EP 1070502 A2 010124 (Basic)

EP 1070502 A3 011017

Searcher : Shears 308-4994

09/699224

APPLICATION (CC, No, Date): EP 2000123557 971202;  
PRIORITY (CC, No, Date): US 32215 P 961202; US 63087 P 971024  
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;  
MC; NL; PT; SE  
RELATED PARENT NUMBER(S) - PN (AN):  
EP 941089 (EP 97945697)  
INTERNATIONAL PATENT CLASS: A61K-031/335; A61K-033/08; A61K-033/16;  
A61K-031/22; A61K-031/425; A61K-031/36; A61K-031/70

ABSTRACT EP 1070502 A2

The present invention provides methods for treating or preventing inflammatory diseases such as psoriasis or multiple sclerosis, comprising the step of delivering to the site of inflammation an anti-microtubule agent, or analogue or derivative thereof.

ABSTRACT WORD COUNT: 36

NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200104	897
SPEC A	(English)	200104	49715
Total word count - document A			50612
Total word count - document B			0
Total word count - documents A + B			50612

9/3,AB/16 (Item 11 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01234610

Neisseria meningitidis compounds and anti-infection applications thereof  
Neisseria meningitidis Zusammensetzungen und ihre Verwendungen als  
anti-infektionsmitteln  
Compositions a base de Neisseria meningitidis et leur utilisation comme  
agents anti-infectieux

PATENT ASSIGNEE:

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PATENT (CC, No, Kind, Date): EP 1069133 A1 010117 (Basic)

APPLICATION (CC, No, Date): EP 99401764 990713;

DESIGNATED STATES: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI;  
LU; MC; NL; PT; SE

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: C07K-014/22; C12N-015/31; C07K-016/12;  
C12N-015/10; A61K-039/095; G01N-033/53

## ABSTRACT EP 1069133 A1

The invention provides novel *Neisseria meningitidis* (Nm) polypeptides and polynucleotides which cover the Nm genetic diversity, and which correspond to polypeptide of Nm outer membrane and/or periplasma, and to methods for producing such Nm compounds. Also provided are anti-Nm infection, and particularly diagnostic, prophylactic and therapeutic uses thereof.

ABSTRACT WORD COUNT: 49

## NOTE:

Figure number on first page: NONE

LANGUAGE (Publication,Procedural,Application): English; English; English

## FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200103	2904
SPEC A	(English)	200103	23204
Total word count - document A			26108
Total word count - document B			0
Total word count - documents A + B			26108

9/3,AB/17 (Item 12 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

01096409

Methods and compositions for detecting binding of ligand pair using non-fluorescent label

Methoden und Zusammensetzungen zum Nachweis der Bindung eines Liganden-Paars mittels nicht-fluorisierender Markierungen

Procedes et compositions pour detecter une paire de ligands par marquage non fluorescent

## PATENT ASSIGNEE:

Rapigene, Inc., (2545340), 1631 - 220th Street S.E., Bothell, Washington 98021, (US), (Applicant designated States: all)

## INVENTOR:

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Van Ness, Jeffrey, 10020 49th Avenue Northeast, Seattle, Washington 98125, (US)

## LEGAL REPRESENTATIVE:

Gowshall, Jonathan Vallance et al (61531), FORRESTER & BOEHMERT

Franz-Joseph-Strasse 38, 80801 Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 962464 A2 991208 (Basic)

APPLICATION (CC, No, Date): EP 99110813 970123;

PRIORITY (CC, No, Date): US 10436 P 960123; US 15402 P 960321

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

RELATED PARENT NUMBER(S) - PN (AN):

EP 850320 (EP 97903074)

INTERNATIONAL PATENT CLASS: C07K-005/068; C12Q-001/68; G01N-030/72

ABSTRACT EP 962464 A2



Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (a) combining a set of first tagged members with a biological sample which may contain one or more second members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry, or potentiometry; (b) separating bound first and second members from unbound members; (c) cleaving the tag from the tagged first member; and (d) detecting the tag by non-fluorescent spectrometry, or potentiometry, and therefrom detecting the binding of the first member to the second member.

ABSTRACT WORD COUNT: 121

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
SPEC A	(English)	9949	38717
Total word count - document A			38717
Total word count - document B			0
Total word count - documents A + B			38717

9/3,AB/18 (Item 13 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

01042334

Method to determine biomolecular interaction  
Verfahren zum Biomolekularinteraktionsnachweis  
Methode pour determiner d'action reciproque biomoleculaire  
PATENT ASSIGNEE:

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(Proprietor designated states: all)  
Hirsh, Aaron, (2426220), 1003 Rosehill Drive, Boulder, CO 80302, (US),  
(Proprietor designated states: all)

INVENTOR:

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Hirsh, Aaron, 1003 Rosehill Drive, Boulder, CO 80302, (US)

LEGAL REPRESENTATIVE:

Alge, Daniel, Mag. Dr. rer.nat. et al (79841), Patentanwalte Sonn,  
Pawloy, Weinzingler & Kohler-Pavlik Riemergasse 14, 1010 Wien, (AT)  
PATENT (CC, No, Kind, Date): EP 922957 A1 990616 (Basic)  
EP 922957 B1 000329

APPLICATION (CC, No, Date): EP 97121451 971205;

PRIORITY (CC, No, Date): EP 97121451 971205

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; IT; LI; NL; SE

EXTENDED DESIGNATED STATES: SI

INTERNATIONAL PATENT CLASS: G01N-033/48; G01N-033/50; G01N-033/569;  
G01N-033/68

ABSTRACT EP 922957 A1

This invention is a method for determining the interaction of a target compound with a (poly)peptide of interest (which is selected from proteins, glycoproteins, or proteoglycans or sections thereof) exhibiting specific, prescribed properties. The interaction is characterized by at least one of the interactants being unknown. In general, only one of the interactants is unknown.

When the unknown interactant is the (poly)peptide of interest, the method is based on three components: (1) a population of prokaryotic or eukaryotic cells displaying on their surface a combinatorial library in one protein, glycoprotein, or proteoglycan; (2) a target compound; and (3) a toxic agent. Interaction among the three components "imprints" the combinatorially varied polypeptide: that is, the interaction selects for those cells in which the combinatorially varied polypeptide interacts with the target compound in a prescribed manner.

ABSTRACT WORD COUNT: 136

NOTE:

Figure number on first page: 7

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200013	878
CLAIMS B	(German)	200013	875
CLAIMS B	(French)	200013	960
SPEC B	(English)	200013	33079
Total word count - document A			0
Total word count - document B			35792
Total word count - documents A + B			35792

9/3,AB/19 (Item 14 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00928178

HOMOGENEOUS DIAGNOSTIC ASSAY METHOD UTILIZING SIMULTANEOUS TARGET AND  
SIGNAL AMPLIFICATION  
HOMOGENEER DIAGNOSE ASSAY WELCHER AUF DER SIMULTANEN VERVIELFALTIGUNG DER  
ZIELPROBE UND DES SIGNALS BERUHT  
METHODE DE DOSAGE DIAGNOSTIQUE HOMOGENE UTILISANT UNE AMPLIFICATION  
SIMULTANEE DE LA CIBLE ET DU SIGNAL

PATENT ASSIGNEE:

Navix, Inc., (1691891), 542 Flynn Road, Camarillo, CA 93012, (US),  
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PATENT (CC, No, Kind, Date): EP 918883 A2 990602 (Basic)  
EP 918883 B1 020327  
WO 9804739 980205

APPLICATION (CC, No, Date): EP 97933502 970716; WO 97US12415 970716

PRIORITY (CC, No, Date): US 692825 960725

DESIGNATED STATES: BE; CH; DE; FR; GB; IE; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: C12Q-001/68

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

09/699224

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200213	1001
CLAIMS B	(German)	200213	847
CLAIMS B	(French)	200213	1082
SPEC B	(English)	200213	14858
Total word count - document A			0
Total word count - document B			17788
Total word count - documents A + B			17788

9/3,AB/20 (Item 15 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00876573

METHODS FOR DETECTING BINDING OF LIGAND PAIR WITH ENHANCED SENSITIVITY  
VERFAHREN ZUR ERKENNUNG VON LIGANDENPAAR BINDUNG MIT ERHÖHTE  
EMPFINDLICHKEIT

PROCEDES PERMETTANT DE DETECTER LA FIXATION DE DEUX ELEMENTS D'UNE PAIRE DE  
LIGANDS AVEC UNE SENSIBILITE AUGMENTEE

PATENT ASSIGNEE:

Rapigene, Inc., (2545340), 1631 - 220th Street S.E., Bothell, Washington  
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INVENTOR:

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PATENT (CC, No, Kind, Date): EP 850320 A2 980701 (Basic)

EP 850320 B1 991208

WO 9727327 970731

APPLICATION (CC, No, Date): EP 97903074 970123; WO 97US1070 970123

PRIORITY (CC, No, Date): US 10436 P 960123; US 15402 P 960321

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU;

MC; NL; PT; SE

RELATED DIVISIONAL NUMBER(S) - PN (AN):

(EP 99110813)

INTERNATIONAL PATENT CLASS: C12Q-001/68

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	9949	994
CLAIMS B	(German)	9949	967
CLAIMS B	(French)	9949	1133
SPEC B	(English)	9949	38513
Total word count - document A			0
Total word count - document B			41607
Total word count - documents A + B			41607

9/3,AB/21 (Item 16 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS

09/699224

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00684228

SYNTHETIC MULTIPLE TANDEM REPEAT MUCIN AND MUCIN-LIKE PEPTIDES, AND USES THEREOF

SYNTHETISCHE, VIELFACHE TANDEMWIEDERHOLUNGEN DES MUCINPEPTIDES UND SEINER DERIVATE UND DEREN VERWENDUNG

PEPTIDES SYNTHETIQUES A REPETITIONS EN TANDEM MULTIPLES, A BASE DE MUCINE ET D'ANALOGUES, ET UTILISATIONS

PATENT ASSIGNEE:

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Fontenot, J. Darrell, (1914690), 600 Gettysburg Drive, Pittsburgh, PA 15206, (US), (Proprietor designated states: all)

Montelaro, Ronald C., (1914700), 2563 Barnwood Drive, Wexford, PA 15090, (US), (Proprietor designated states: all)

INVENTOR:

Finn, Olivera J., 152 N. Woodland Road, Pittsburgh, PA 15206, (US)

Fontenot, J. Darrell, 600 Gettysburg Drive, Pittsburgh, PA 15206, (US)

Montelaro, Ronald C., 2563 Barnwood Drive, Wexford, PA 15090, (US)

LEGAL REPRESENTATIVE:

Smart, Peter John et al (43071), W.H. BECK, GREENER & CO 7 Stone

Buildings Lincoln's Inn, London WC2A 3SZ, (GB)

PATENT (CC, No, Kind, Date): EP 804231 A1 971105 (Basic)

EP 804231 B1 030205

WO 95003825 950209

APPLICATION (CC, No, Date): EP 94925121 940729; WO 94US8477 940729

PRIORITY (CC, No, Date): US 99354 930730

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-039/12; C12N-005/12; C12P-021/08;

C07K-004/00

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200306	647
CLAIMS B	(German)	200306	576
CLAIMS B	(French)	200306	674
SPEC B	(English)	200306	19288
Total word count - document A			0
Total word count - document B			21185
Total word count - documents A + B			21185

9/3,AB/22 (Item 17 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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00656876

GONOCOCCAL ANTI-IDIOTYPIC ANTIBODIES AND METHODS AND COMPOSITIONS USING THEM

Anti idiotypische Antikörper gegen Gonococcen und diese verwendende Verfahren und Zusammensetzungen.

ANTICORPS ANTI-IDIOTYPIQUES GONOCOCCIQUES ET PROCEDES ET COMPOSITIONS LES UTILISANT

PATENT ASSIGNEE:

Searcher : Shears 308-4994

09/699224

Rice, Peter A., (3024480), 55 Norfolk Road, Chestnut Hill, MA 021  
, (Proprietor designated states: all)  
Gulati, Sunita, (3024490), 14 Wheeler Street, Gloucester, MA 0193  
(Proprietor designated states: all)  
McQuillen, Daniel P., (3024500), 9 Holland Terrace, Needham, MA 02192,  
(US), (Proprietor designated states: all)

INVENTOR:

Rice, Peter A., 55 Norfolk Road, Chestnut Hill, MA 02167, (US)  
Gulati, Sunita, 14 Wheeler Street, Gloucester, MA 01930, (US)  
McQuillen, Daniel P., 9 Holland Terrace, Needham, MA 02192, (US)

LEGAL REPRESENTATIVE:

VOSSIUS & PARTNER (100311), Postfach 86 07 67, 81634 Munchen, (DE)  
PATENT (CC, No, Kind, Date): EP 695192 A1 960207 (Basic)

EP 695192 B1 010228  
WO 9422479 941013

APPLICATION (CC, No, Date): EP 94912962 940406; WO 94US3794 940406

PRIORITY (CC, No, Date): US 43663 930406

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IE; IT; LI; LU; MC;  
NL; PT; SE

INTERNATIONAL PATENT CLASS: A61K-039/395; C12P-021/08; C12N-005/12;  
G01N-033/569

NOTE:

No A-document published by EPO

LANGUAGE (Publication, Procedural, Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200109	497
CLAIMS B	(German)	200109	479
CLAIMS B	(French)	200109	494
SPEC B	(English)	200109	16656
Total word count - document A			0
Total word count - document B			18126
Total word count - documents A + B			18126

9/3,AB/23 (Item 18 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00556533

METHODS FOR TREATING TUMOR NECROSIS FACTOR MEDIATED DISEASES

METHODEN ZUR BEHANDLUNG VON DURCH DEN TUMOR NEKROSE FAKTOR AUSGELOSTEN  
KRANKHEITEN

PROCEDES POUR TRAITER LES MALADIES INDUITES PAR FACTEUR DE NECROSE TUMORALE  
PATENT ASSIGNEE:

Amgen Inc., (2570211), One Amgen Center, Thousand Oaks, CA 91320-1789,  
(US), (Proprietor designated states: all)

INVENTOR:

CARMICHAEL, David, F., 2180 Lefthand Canyon Drive, Boulder, CO 80302-9345  
, (US)

SMITH, Christopher, G., 67 Baldwin Circle, Eldorado Springs, CO 80025,  
(US)

THOMPSON, Robert, C., 1820 Lehigh Street, Boulder, CO 80303, (US)

RUSSELL, Deborah, 3825 Armer Drive, Boulder, CO 80303, (US)

KOHNO, Tadahiko, 1557 Hays Ct., Louisville, CO 80027, (US)

LEGAL REPRESENTATIVE:

Vogelsang-Wenke, Heike, Dr. et al (72473), Grunecker, Kinkeldey,  
Stockmair & Schwanhauser Anwaltssozietat Maximilianstrasse 58, 80538

09/699224

Munchen, (DE)

PATENT (CC, No, Kind, Date): EP 567566 A1 931103 (Basic)  
EP 567566 A1 941005  
EP 567566 B1 000315  
WO 9213095 920806

APPLICATION (CC, No, Date): EP 92904429 920117; WO 92US432 920117

PRIORITY (CC, No, Date): US 644345 910118

DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FR; GB; GR; IT; LI; LU; MC; NL;  
SE

INTERNATIONAL PATENT CLASS: C07K-014/715; A61K-038/02

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200011	1060
CLAIMS B	(German)	200011	987
CLAIMS B	(French)	200011	1190
SPEC B	(English)	200011	10543

Total word count - document A 0

Total word count - document B 13780

Total word count - documents A + B 13780

9/3,AB/24 (Item 19 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

(c) 2003 European Patent Office. All rts. reserv.

00384471

T-CELL \*EPITOPE\*\*\* AS CARRIERS MOLECULE FOR CONJUGATE VACCINES.

T-ZELLEN-\*EPITOPE\*\*\* ALS TRAGER FUR EINEN KONJUGIERTEN IMPFSTOFF.

\*EPITOPES\*\*\* DE CELLULES T A TITRE DE MOLECULES PORTEUSES POUR VACCINS  
CONJUGUES.

PATENT ASSIGNEE:

PRAXIS BIOLOGICS, INC., (693521), 30 Corporate Woods, Rochester New York  
14623, (US), (applicant designated states:  
AT;BE;CH;DE;FR;GB;IT;LI;LU;NL;SE)

INVENTOR:

BIXLER, Garvin, 92 Squirrel's Heath Road, Fairport, NY 11450, (US)

PILLAI, Subramonia, 286 Vollmer Parkway, Rochester, NY 14623, (US)

INSEL, Richard, 167 Oakdale Drive, Rochester, NY 14618, (US)

LEGAL REPRESENTATIVE:

Allam, Peter Clerk et al (27601), LLOYD WISE, TREGEAR & CO. Norman House  
105-109 Strand, London WC2R 0AE, (GB)

PATENT (CC, No, Kind, Date): EP 399001 A1 901128 (Basic)  
EP 399001 B1 940727  
WO 8906974 890810

APPLICATION (CC, No, Date): EP 89908669 890131; WO 89US388 890131

PRIORITY (CC, No, Date): US 150688 880201

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: A61K-039/385; C07K-015/04; A61K-039/155;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	747
CLAIMS B	(German)	EPBBF1	655

Searcher : Shears 308-4994

09/699224

CLAIMS B	(French)	EPBBF1	800
SPEC B	(English)	EPBBF1	13397
Total word count - document A			0
Total word count - document B			15599
Total word count - documents A + B			15599

9/3,AB/25 (Item 20 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00279714

BIOLOGICAL CONTAINMENT.

BIOLOGISCHE EINDAMMUNG.

CONFINEMENT BIOLOGIQUE.

PATENT ASSIGNEE:

GENEXPRESS APS, (908261), Mothsvej 70, DK-2840 Holte, (DK), (applicant  
designated states: AT;BE;CH;DE;FR;GB;IT;LI;NL;SE)

INVENTOR:

MOLIN, So /ren, Mothsvej 70, DK-2840 Holte, (DK)

ANDERSSON, Poul, Kirketerp, Stockflethsvej 9, 1.th., DK-2000  
Frederiksberg, (DK)

GERDES, Kenn, Axo /, Bo /gevang 19, DK-2830 Virum, (DK)

KLEMM, Per, Lykkesholms Alle 28, DK-1902 Frederiksberg C, (DK)

LEGAL REPRESENTATIVE:

Andersen, Henrik Rastrup et al (60641), c/o Plougmann & Vingtoft A/S,  
Sankt Annae Plads 11, P.O. Box 3007, DK-1021 Copenhagen K, (DK)

PATENT (CC, No, Kind, Date): EP 273040 A1 880706 (Basic)

EP 273040 B1 940622

WO 8705932 871008

APPLICATION (CC, No, Date): EP 87902443 870325; WO 87DK31 870325

PRIORITY (CC, No, Date): DK 861455 860326; DK 866294 861223

DESIGNATED STATES: AT; BE; CH; DE; FR; GB; IT; LI; NL; SE

INTERNATIONAL PATENT CLASS: C12N-015/03; C12N-001/00; C12N-001/36;

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	4179
CLAIMS B	(German)	EPBBF1	4034
CLAIMS B	(French)	EPBBF1	4684
SPEC B	(English)	EPBBF1	24199

Total word count - document A 0

Total word count - document B 37096

Total word count - documents A + B 37096

9/3,AB/26 (Item 21 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
(c) 2003 European Patent Office. All rts. reserv.

00260813

\*Gonococcal\*\*\* and meningococcal polypeptides, vaccines and diagnostics.

Gonokokken- und Meningokokken-Polypeptide, Impfstoffe und Diagnostiken.

Polypeptides des gonocoques et des meningocoques, vaccins et tests.

PATENT ASSIGNEE:

Max-Planck-Gesellschaft zur Forderung der Wissenschaften e.V., (210790),

09/699224

Bunsenstrasse 10, D-3400 Gottingen, (DE), (applicant designated state:  
AT;BE;CH;DE;ES;FR;GB;GR;IT;LI;LU;NL;SE)

INVENTOR:

Meyer, Thomas F., Vochtingstrasse 1, D-7400 Tübingen, (DE)

Stern, Anne, Karwendelstrasse 10, D-8122 Penzberg, (DE)

LEGAL REPRESENTATIVE:

Vossius & Partner, Siebertstrasse 4 P.O. Box 86 07 67, D-8000 München 86  
, (DE)

PATENT (CC, No, Kind, Date): EP 273116 A2 880706 (Basic)  
EP 273116 A3 900502

APPLICATION (CC, No, Date): EP 87114513 871005;

PRIORITY (CC, No, Date): EP 86113993 861009

DESIGNATED STATES: AT; BE; CH; DE; ES; FR; GB; GR; IT; LI; LU; NL; SE

INTERNATIONAL PATENT CLASS: C07K-007/06; C07K-007/08; C07K-007/10;

C07K-015/14; G01N-033/569; G01N-033/571; A61K-039/095; A61K-039/40;

C12N-015/00; A61K-037/02;

ABSTRACT EP 273116 A2

The subject matter of the invention is a polypeptide which includes an amino acid residue sequence constituted by at least 5 and up to about 80 amino acid residues, and which is capable of immunologically \*mimicking\*\*\* a conserved antigenic determinant site of a conococcal opacity protein (Protein II) and/or meningococcal class 5 protein.

The polypeptide of the invention can be used as a vaccine or diagnostic for the prevention of gonorrhea and/or meningitidis.

ABSTRACT WORD COUNT: 77

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPABF1	985
SPEC A	(English)	EPABF1	3192
Total word count - document A			4177
Total word count - document B			0
Total word count - documents A + B			4177

9/3,AB/27 (Item 1 from file: 357)

DIALOG(R)File 357:Derwent Biotech Res.

(c) 2003 Thomson Derwent & ISI. All rts. reserv.

0173390 DBR Accession No.: 95-00211 PATENT

New anti-idiotypic monoclonal antibody \*mimicking\*\*\* Neisseria

\*gonorrhoeae\*\*\* \*epitope\*\*\* - chimeric antibody and humanized antibody production by antibody engineering and hybridoma culture for potential use in disease diagnosis, prevention or therapy; recombinant vaccine

AUTHOR: Rice P A; Gulati S; McQuillen D P

PATENT ASSIGNEE: Health+Hosp.Boston-City 1994

PATENT NUMBER: WO 9422479 PATENT DATE: 941013 WPI ACCESSION NO.:  
94-332827 (9441)

PRIORITY APPLIC. NO.: US 43663 APPLIC. DATE: 930406

NATIONAL APPLIC. NO.: WO 94US3794 APPLIC. DATE: 940406

LANGUAGE: English

ABSTRACT: An anti-idiotypic monoclonal antibody (AI-MAB) or a fragment having an antigen combining site which immunospecifically binds to the idiotype of a 2nd antibody (I), which binds to an oligosaccharide \*epitope\*\*\* of Neisseria \*gonorrhoeae\*\*\* which is not present in human blood group antigens, is claimed. (I) preferably binds to an



oligosaccharide epitope recognized by MAb 2C7 or to an oligosaccharide epitope recognized by a MAb produced by immunizing a mammal with an anti-idiotypic MAb, or a fragment, produced by a hybridoma with characteristics of ATCC HB 11311. Preferably, the MAb is produced by ATCC HB 11311 and is a recombinant chimeric anti-humanized antibody. Also claimed are: (1) a cell producing an AI-MAb or its fragment, preferably a hybridoma cell, especially ATCC HB 11311; (2) a method for producing AI-MAb, involving culturing (1); (3) a composition for preventing, diagnosis or therapy of N. gonorrhoeae infection containing the AI-MAb or its fragment; and (4) methods for prevention, therapy or diagnosis of N. gonorrhoeae using a labeled AI-MAb or its fragment. (90pp)

Set	Items	Description
S10	1384	AU=(RICE, P? OR RICE P?)
S11	837	AU=(GULATI, S? OR GULATI S?)
S12	6	AU=(NGAMPASUTADOL J? OR NGAMPASUTADOL, J?)
S13	3	S10 AND S11 AND S12
S14	49	S10 AND (S11 OR S12)
S15	3	S11 AND S12
S16	109	(S14 OR S10 OR S11 OR S12) AND (GONORRHOEAE OR GONOCOCC?)
S17	9	S16 AND (PEPTIDOMIMET? OR MIMETIC? OR MIMETOP? OR MIMIC?)
S18	2	(S13 OR S15 OR S17) NOT S8
S19	2	RD (unique items)

>>>No matching display code(s) found in file(s): 65, 113

- Author(s)

19/3,AB/1 (Item 1 from file: 65)  
 DIALOG(R)File 65:Inside Conferences  
 (c) 2003 BLDSC all rts. reserv. All rts. reserv.

03897694 INSIDE CONFERENCE ITEM ID: CN040959312  
 Anti-idiotypic modeling may predict antigenic similarity of peptides with the 2C7 epitope on Neisseria gonorrhoeae  
 \*Ngampasutadol, J.""; \*Gulati, S.""; Graf, T. G.; Smith, T. F.; Sharon, J.; \*Rice, P. A.""  
 CONFERENCE: International pathogenic Neisseria conference-11th  
 ABSTRACTS OF THE INTERNATIONAL PATHOGENIC NEISSERIA CONFERENCE, 1998;  
 11TH P: 159  
 Paris, EDK, 1998  
 ISBN: 2842540158  
 LANGUAGE: English DOCUMENT TYPE: Conference Selected abstracts  
 CONFERENCE LOCATION: Nice, France 1998; Nov (199811) (199811)

19/3,AB/2 (Item 2 from file: 65)  
 DIALOG(R)File 65:Inside Conferences  
 (c) 2003 BLDSC all rts. reserv. All rts. reserv.

03749061 INSIDE CONFERENCE ITEM ID: CN039420880  
 Antigenic similarity of peptides with a carbohydrate epitope on N. gonorrhoeae  
 \*Ngampasutadol, J.""; \*Gulati, S.""; \*Rice, P. A.""  
 CONFERENCE: Molecular approaches to vaccine design-Meeting  
 P: 62  
 Cold Spring Harbor Laboratory, 1999  
 LANGUAGE: English DOCUMENT TYPE: Conference Preprinted abstracts and programme  
 CONFERENCE EDITOR(S): Ahmed, R.; Burton, D.; Liu, M.

09/699224

CONFERENCE SPONSOR: Cold Spring Harbor Laboratory

CONFERENCE LOCATION: Cold Spring Harbor, NY 1999; Dec (199912) (199912)

NOTE:

Requested as Winter biotechnology conference

? log y

11feb03 12:00:18 User219783 Session D1913.2

Devi, S.  
09/699224

09/699224

FILE "REGISTRY" ENTERED AT 12:11:52 ON 11 FEB 2003  
E GLF/SQEP

L39 139778 SEA ABB=ON PLU=ON GLF/SQSP

Seg.

FILE "HCAPLUS" ENTERED AT 12:12:39 ON 11 FEB 2003

L40 23534 SEA ABB=ON PLU=ON L39  
L41 117 SEA ABB=ON PLU=ON L40 AND (GONORRHOEAE OR GONOCOCC?)  
L42 2 SEA ABB=ON PLU=ON L41 AND (MIMIC? OR MIMEOTOP? OR  
MIMETIC? OR PEPTIDOMIMETIC?)

L42 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:338560 HCAPLUS

DOCUMENT NUMBER: 134:352269

TITLE: Peptide **mimics** of conserved  
**gonococcal** epitopes and methods and  
compositions using them

INVENTOR(S): Rice, Peter A.; Ngampasutadol, Jutamas; Gulati,  
Sunita

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 57 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032692	A2	20010510	WO 2000-US29749	20001027
WO 2001032692	A3	20020307		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRIORITY APPLN. INFO.: US 1999-162491P P 19991029

AB The present invention relates to peptide **mimics** of a conserved **gonococcal** epitope of Neisseria **gonorrhoeae**, which epitope is not found on human blood group antigens. This invention also relates to methods and compns. using such peptide **mimics** for the prophylaxis of gonorrheal infections.

IT 338797-97-0, Ipvldenglfap peptide+ 338798-03-1, Vlvgekglfegg peptide+ 338798-11-1, Cgpipvlenglfpgc peptide+

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antigenic peptide **mimics** of conserved **gonococcal** epitopes and methods and compns. using them)

IT 339306-22-8

RL: PRP (Properties)  
(unclaimed protein sequence; peptide **mimics** of

conserved **gonococcal** epitopes and methods and compns.  
using them)

L42 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1996:388329 HCAPLUS

DOCUMENT NUMBER: 125:52368

TITLE: Glycosyltransferases for biosynthesis of  
oligosaccharides, and genes encoding them

INVENTOR(S): Gotschlich, Emil C.

PATENT ASSIGNEE(S): Rockefeller University, USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9610086	A1	19960404	WO 1995-US12317	19950925
W:		AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TT, UA, UZ, VN		
RW:		KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG		
US 5545553	A	19960813	US 1994-312387	19940926
CA 2200973	AA	19960404	CA 1995-2200973	19950925
AU 9536856	A1	19960419	AU 1995-36856	19950925
AU 714684	B2	20000106		
EP 784688	A1	19970723	EP 1995-934548	19950925
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE		
JP 10509301	T2	19980914	JP 1995-511978	19950925
US 5705367	A	19980106	US 1996-683426	19960718
US 5798233	A	19980825	US 1996-683458	19960718
US 5945322	A	19990831	US 1997-878360	19970618
US 6342382	B1	20020129	US 1999-333412	19990615
US 2002127682	A1	20020912	US 2001-7267	20011203
PRIORITY APPLN. INFO.:			US 1994-312387	A 19940926
			WO 1995-US12317	W 19950925
			US 1996-683426	A1 19960718
			US 1997-878360	A1 19970618
			US 1999-333412	A1 19990615

AB The present invention is directed to nucleic acids encoding glycosyltransferases, the proteins encoded thereby, and to methods for synthesizing oligosaccharides using the glycosyltransferases of the invention. The glycosyltransferases are particularly suited to synthesis of the oligosaccharides Gal.beta.1.fwdarw.4GlcNAc.beta.1.fwdarw.3Gal.beta.1.fwdarw.4Glc (a **mimic** of lacto-N-neotetraose), GalNAc.beta.1.fwdarw.3Gal.beta.1.fwdarw.4GlcNAc.beta.1.fwdarw.3Gal.beta.1.fwdarw.4Glc.beta.1.fwdarw.4 (a ganglioside **mimic**), and Gal.alpha.1.fwdarw.4Gal.beta.1.fwdarw.4Glc.beta.1.fwdarw.4Hep.fwdarw.R (a **mimic** of the saccharide portion of globoglycolipids). A glycosyltransferase locus of *Neisseria gonorrhoeae* strain F62 contg. five open reading frames (genes lgtA-E) for five different glycosyltransferases was cloned. By mutational anal., these

09/699224

glycosyltransferases were shown to catalyze the addn. of Gal .beta.1.fwdarw.4 to GlcNAc or Glc; the addn. of GalNAc or GlcNAc .beta.1.fwdarw.3 to Gal; and the addn. of Gal .alpha.1.fwdarw.4 to Gal. DNA sequence anal. revealed that lgtA, lgtC, and lgtD contained poly-G tracts of 17, 10, and 11 bp, resp. Thus, 3 of the biosynthetic enzymes are potentially susceptible to premature termination by reading-frame changes, as has been reported for the **gonococcal pilC** genes.

IT 178198-86-2

RL: CAT (Catalyst use); PRP (Properties); USES (Uses)  
(amino acid sequence; glycosyltransferases for biosynthesis of oligosaccharides, and genes encoding them)

E1 THROUGH E5 ASSIGNED

L43 ~~FILE "REGISTRY"~~ ENTERED AT 12:19:40 ON 11 FEB 2003  
5 SEA FILE=REGISTRY ABB=ON PLU=ON (178198-86-2/BI OR  
338797-97-0/BI OR 338798-03-1/BI OR 338798-11-1/BI OR  
339306-22-8/BI)

=> s 143 and 139

L44 5 L43 AND L39

L44 ANSWER 1 OF 5 REGISTRY COPYRIGHT 2003 ACS  
RN 339306-22-8 REGISTRY  
CN 18: PN: WO0132699 SEQID: 8 unclaimed protein (9CI) (CA INDEX NAME)  
CI MAN  
SQL 6

SEQ 1 DEXGLF

===

HITS AT: 4-6

REFERENCE 1: 134:352269

L44 ANSWER 2 OF 5 REGISTRY COPYRIGHT 2003 ACS  
RN 338798-11-1 REGISTRY  
CN L-Cysteine, L-cysteinylglycyl-L-prolyl-L-isoleucyl-L-prolyl-L-valyl-L-leucyl-L-.alpha.-glutamyl-L-asparaginylglycyl-L-leucyl-L-phenylalanylglycyl-L-prolyl-, cyclic (1.fwdarw.15)-disulfide (9CI)  
(CA INDEX NAME)

OTHER NAMES:

CN 27: PN: WO0132699 SEQID: 10 claimed protein  
SQL 15

SEQ 1 CGPIPVLENG LFGPC

= ==

HITS AT: 10-12

REFERENCE 1: 134:352269

L44 ANSWER 3 OF 5 REGISTRY COPYRIGHT 2003 ACS  
RN 338798-03-1 REGISTRY  
CN Glycine, L-valyl-L-leucyl-L-valylglycyl-L-.alpha.-glutamyl-L-lysylglycyl-L-leucyl-L-phenylalanyl-L-.alpha.-glutamylglycyl- (9CI)  
(CA INDEX NAME)

OTHER NAMES:

09/699224

CN 23: PN: WO0132699 SEQID: 4 claimed protein  
SQL 12

SEQ 1 VLVGEKGLFE GG  
===

HITS AT: 7-9

REFERENCE 1: 134:352269

L44 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2003 ACS

RN 338797-97-0 REGISTRY

CN L-Proline, L-isoleucyl-L-prolyl-L-valyl-L-leucyl-L-.alpha.-aspartyl-  
L-.alpha.-glutamyl-L-asparaginyglycyl-L-leucyl-L-phenylalanyl-L-  
alanyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 20: PN: WO0132699 SEQID: 1 claimed protein

SQL 12

SEQ 1 IPVLDENGLF AP  
===

HITS AT: 8-10

REFERENCE 1: 134:352269

L44 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2003 ACS

RN 178198-86-2 REGISTRY

CN Galactosyltransferase (Neisseria gonorrhoeae clone pPstCla/p3400  
gene lgtC) (9CI) (CA INDEX NAME)

CI MAN

SQL 306

SEQ 1 MDIVFAADDN YAAYLCVAAK SVEAAHPDTE IRFHVLDAgi SEENRAAVAA  
51 NLRGGGNIRF IDVNPEDFAG FPLNIRHISI TTYARLKLGE YIADCDKVLy  
101 LDTDVLVRDG LKPLWDTDLG GNWVGACIDL FVERQEGYKQ KIGMADGEYY  
151 FNAGVLLINL KKWRRHDIFK MSCEWVEQYK DVMQYQDQDI LNGLFKGGVC  
===

201 YANSRFNFMP TNYAFMANGF ASRHTDPLYL DRTNTAMPVA VSHYCGSAKP

251 WHRDCTVWGA ERFTELAGSL TTVPEEWRGK LAVPPTKCML QRWRKKLSAR

301 FLRKIY

HITS AT: 193-195

REFERENCE 1: 125:52368

FILE 'HOME' ENTERED AT 12:20:10 ON 11 FEB 2003

09/699224

FILE 'REGISTRY' ENTERED AT 11:26:44 ON 11 FEB 2003  
E CYSTEINE/CN

L1

2 S E3

-Key

FILE 'HCAPLUS' ENTERED AT 11:26:53 ON 11 FEB 2003

L2

117 SEA FILE=HCAPLUS ABB=ON PLU=ON (GONORRH? OR GONOCOCC?) (S)EPITOP?

L3

9 SEA FILE=HCAPLUS ABB=ON PLU=ON L2 AND (PEPTIDOMIMET? OR MIMETIC? OR MIMEOTOP? OR MIMIC?)

L1

2 SEA FILE=REGISTRY ABB=ON PLU=ON CYSTEINE/CN

L5

80 SEA FILE=HCAPLUS ABB=ON PLU=ON ((L1 OR CYSTEINE OR CYS) (5A) (TERMIN? OR END?)) AND (PEPTIDOMIMET? OR MIMETIC? OR MIMEOTOP? OR MIMIC?)

\*omitted C-Term.  
See L33-L38

L6

1 SEA FILE=HCAPLUS ABB=ON PLU=ON L5 AND (GONORRH? OR GONOCOCC?)

L7

9 L3 OR L6

L7 ANSWER 1 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:822585 HCAPLUS

TITLE: Peptide **mimic** elicits bactericidal antibody response against an oligosaccharide **epitope** of neisseria **gonorrhoeae**

AUTHOR(S): Ngampasutadol, Jutamas

CORPORATE SOURCE: Boston Univ., Boston, MA, USA

SOURCE: (2002) 220 pp. Avail.: UMI, Order No. DA3043318  
From: Diss. Abstr. Int., B 2002, 63(2), 729

DOCUMENT TYPE: Dissertation

LANGUAGE: English

AB Unavailable

L7 ANSWER 2 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:640163 HCAPLUS

DOCUMENT NUMBER: 137:334393

TITLE: GNA33 from Neisseria meningitidis serogroup B encodes a membrane-bound lytic transglycosylase (MltA)

AUTHOR(S): Jennings, Gary T.; Savino, Silvana; Marchetti, Elisa; Arico, Beatrice; Kast, Thomas; Baldi, Lucia; Ursinus, Astrid; Holtje, Joachim-Volker; Nicholas, Robert A.; Rappuoli, Rino; Grandi, Guido

CORPORATE SOURCE: I.R.I.S., Chiron S.p.A., Siena, Italy

SOURCE: European Journal of Biochemistry (2002), 269(15), 3722-3731

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB In a previous study, we used the genome of serogroup B Meningococcus to identify novel vaccine candidates. One of these mols., GNA33, is well conserved among Meningococcus B strains, other Meningococcus serogroups and **Gonococcus** and induces bactericidal antibodies as a result of being a **mimetic** antigen of the

PorA **epitope** Pl.2. GNA33 encodes a 48-kDa lipoprotein that is 34.5% identical with membrane-bound lytic transglycosylase A (MltA) from *Escherichia coli*. In this study, we expressed GNA33, i.e. *Meningococcus* MltA, as a lipoprotein in *E. coli*. The lipoprotein nature of recombinant MltA was demonstrated by incorporation of [3H]palmitate. MltA lipoprotein was purified to homogeneity from *E. coli* membranes by cation-exchange chromatog. Muramidase activity was confirmed when MltA was shown to degrade insol. murein sacculi and unsubstituted glycan strands. HPLC anal. demonstrated the formation of 1,6-anhydrodisaccharide tripeptide and tetrapeptide reaction products, confirming that the protein is a lytic transglycosylase. Optimal muramidase activity was obsd. at pH 5.5 and 37.degree.C and enhanced by Mg2+, Mn2+ and Ca2+. The addn. of Ni2+ and EDTA had no significant effect on activity, whereas Zn2+ inhibited activity. Triton X-100 stimulated activity 5.1-fold. Affinity chromatog. indicated that MltA interacts with penicillin-binding protein 2 from *Meningococcus* B, and, like MltA from *E. coli*, may form part of a multienzyme complex.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L7 ANSWER 3 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:880528 HCAPLUS

DOCUMENT NUMBER: 136:367943

TITLE: Strategies for **mimicking** neisserial  
saccharide epitopes as vaccines

AUTHOR(S): Gulati, Sunita; Ngampasutadol, Jutamas;  
Yamasaki, Ryohei; McQuillen, Daniel P.; Rice,  
Peter A.

CORPORATE SOURCE: Evans Biomedical Research Center, Department of  
Medicine, Boston University, Boston, MA, USA

SOURCE: International Reviews of Immunology (2001),  
20(2), 229-250

CODEN: IRIMEH; ISSN: 0883-0185

PUBLISHER: Harwood Academic Publishers

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Monoclonal antibody (mAb) 2C7 recognizes a conserved and widely expressed oligosaccharide (OS) **epitope** on *Neisseria gonorrhoeae*. This OS epitope evokes a significant bactericidal and opsonic immune response after natural infection and vaccination. The OS **epitope** structure represents an excellent target for a potential protective **gonococcal** vaccine. Because carbohydrate antigens are T-cell independent, inducing weak antibody responses, OS mols. are not useful immunogens. We developed and examd. two different strategies to **mimic** the 2C7 OS epitope: (i) an anti-idiotope (mAb CA1); and (ii) a peptide (PEP-1). These surrogate immunogens elicited antibody responses in mice (CA1 and PEP-1) and rabbits (CA1) that were bactericidal in vitro against gonococci. Both CA1 and PEP-1 are true immunol. **mimics** of OS and may form a basis for the development of vaccine candidates for human immunization against *N. gonorrhoeae*.

REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT



09/699224

L7 ANSWER 4 OF 9 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2001:338560 HCAPLUS  
DOCUMENT NUMBER: 134:352269  
TITLE: Peptide **mimics** of conserved  
**gonococcal epitopes** and  
methods and compositions using them  
INVENTOR(S): Rice, Peter A.; Ngampasutadol, Jutamas; Gulati,  
Sunita  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 57 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032692	A2	20010510	WO 2000-US29749	20001027
WO 2001032692	A3	20020307		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,  
CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,  
LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ,  
PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ,  
UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,  
TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH,  
CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE,  
BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-162491P P 19991029

AB The present invention relates to peptide **mimics** of a  
conserved **gonococcal epitope** of Neisseria  
**gonorrhoeae**, which **epitope** is not found on human  
blood group antigens. This invention also relates to methods and  
compsns. using such peptide **mimics** for the prophylaxis of  
**gonorrheal** infections.

IT 52-90-4, **Cysteine**, biological studies  
RL: BOC (Biological occurrence); BSU (Biological study,  
unclassified); BIOL (Biological study); OCCU (Occurrence)  
(**terminal**; antigenic peptide **mimics** of  
conserved **gonococcal epitopes** and methods and  
compsns. using them)

L7 ANSWER 5 OF 9 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1999:764358 HCAPLUS  
DOCUMENT NUMBER: 132:433  
TITLE: Agent for combating seasonal type I allergies  
and bacterial infections  
INVENTOR(S): Woelk, Uwe; Goedert, Sigrid; Jose, Joachim;  
Meyer, Thomas  
PATENT ASSIGNEE(S): Max-Planck-Gesellschaft zur Foerderung der  
Wissenschaften e.V., Germany  
SOURCE: Ger. Offen., 16 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1

Searcher : Shears 308-4994

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19823097	A1	19991125	DE 1998-19823097	19980522

PRIORITY APPLN. INFO.: DE 1998-19823097 19980522

AB .alpha.-Protein (an autocatalytically released fragment of the IgA protease precursor produced by pathogenic Neisseria) and/or a nucleic acid encoding .alpha.-protein are useful in a vaccine for immunization against bacterial infections and for treatment of type I allergies such as those induced by pollen. IgA is an important component of the defense system against bacterial infections, and IgA protease, which cleaves secretory IgA1, has an important role in the colonization of animal tissue by pathogenic bacteria. Since a repetitive motif in IgA protease is homologous to an immunodominant T-cell epitope in various pollen species, an infection with IgA protease-secreting bacteria can sensitize individuals to pollen proteins. Thus, .alpha.-proteins from 3 *N. gonorrhoeae* strains and 8 *N. meningitidis* strains showed both marked polymorphism and several conserved features, including an amphipathic coiled-coil domain, a repetitive sequence motif contg. the immunodominant T-cell **epitope**, and the N- and C-termini. IgE antibodies to .alpha.-protein were found in serum from atopic allergy patients but not in healthy serum. Cross-reactive T-cell clones were found which were activated by both a *Poa pratensis* pollen allergen epitope and a *N. meningitidis* .alpha.-protein, as well as an epitope from *Pseudomonas aeruginosa*. T-cell activation was assocd. with secretion of large amts. of interleukin 4.

L7 ANSWER 6 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:37669 HCAPLUS

DOCUMENT NUMBER: 126:73546

TITLE: Experimental immunization with a monoclonal anti-idiotope antibody that **mimics** the *Neisseria gonorrhoeae* lipooligosaccharide **epitope** 2C7

AUTHOR(S): Gulati, Sunita; McQuillen, Daniel P.; Sharon, Jacqueline; Rice, Peter A.

CORPORATE SOURCE: Maxwell Finland Laboratory for Infectious Diseases, Department of Medicine, Boston Medical Center, Boston, MA, 02118, USA

SOURCE: Journal of Infectious Diseases (1996), 174(6), 1238-1248  
CODEN: JIDIAQ; ISSN: 0022-1899

PUBLISHER: University of Chicago Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An anti-idiotope monoclonal antibody (MAb), called CA1 (Ab2), was produced in mice against MAb 2C7, which recognizes widely in vivo-expressed **gonococcal** lipooligosaccharide (LOS) **epitope**. Mice immunized with MAb CA1 initially had a 2.5-fold increase in IgG (12-fold after a booster) but no increase in IgM anti-LOS (Ab1') antibody. Control mice immunized with LOS had a 4.5-fold rise in IgG and 4-fold rise in IgM anti-LOS antibody. In rabbits, MAb CA1 elicited a 9-fold rise in IgG and a 3.3-fold rise in IgM anti-LOS (Ab1') antibody. Ab1' antibody bactericidal activity was 1-2 logs greater than that produced by immunization

with LOS. Ab1' mediated complete human polymorphonuclear leukocyte phagocytosis of 2C7 **epitope**-pos. (but not 2C7 **epitope**-neg.) **gonococci**. MAb CA1 acts as a mol. surrogate (Ab2.beta.) for the nominal LOS antigen and may form the basis for vaccine candidates for human immunization against N. gonorrhoeae.

L7 ANSWER 7 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1995:593605 HCAPLUS

DOCUMENT NUMBER: 123:30562

TITLE: A lipooligosaccharide-binding site on HepG2 cells similar to the gonococcal opacity-associated surface protein Opa

AUTHOR(S): Porat, N.; Apicella, M. A.; Blake, M. S.

CORPORATE SOURCE: Laboratory of Bacterial Pathogenesis and Immunology, The Rockefeller University, New York, NY, 10021, USA

SOURCE: Infection and Immunity (1995), 63(6), 2164-72  
CODEN: INFIBR; ISSN: 0019-9567

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The lacto-N-neotetraose-contg. lipooligosaccharide (LOS) present on the surface of most Neisseria gonorrhoeae organisms may serve many important functions in gonococcal pathogenesis. This surface glycolipid contains the cross-reactive **epitope** to human paragloboside and can be sialylated by **gonococci** grown in the presence of CMP-N-acetylneuraminic acid. Another possible role for this glycolipid could be to **mimic** human asialocarbohydrates and act as a ligand for asialoglycoprotein receptors contained on numerous human cells. The most noted of this large family of receptors is that expressed on the surface of hepatic cells. In a model cell system, using the hepatoma tissue culture cell line HepG2, the authors wanted to investigate if the presence of this asialoglycoprotein receptor influenced the adherence and/or invasion of gonococci expressing the lacto-N-neotetraose structure. Piliated variants of the gonococcal wild-type strain 1291 and its isogenic LOS mutant 1291E were used in adherence-invasion assays. This gonococcal strain is somewhat unusual in that it expresses large amts. of predominantly one species of LOS, thus reducing the complexity of interpreting the data. The data from these assays suggested that the Gal(.beta.1-4)GlcNAc(.beta.1-3)Gal(.beta.1-4)Glc carbohydrate structure on the wild-type LOS affected the adherence-invasion of gonococci into the HepG2 cells. In studies to det. whether the major hepatic asialoglycoprotein receptor was involved in these interactions, the authors found that the HepG2 cells contained two receptors which bound gonococcal LOS. One of these was the asialoglycoprotein receptor, and the data concerning this receptor will be reported elsewhere. The data on the second receptor are reported here. Purified, 125I-labeled gonococcal LOS was used to identify specific high-affinity LOS-binding sites. These binding expts. revealed one major binding site corresponding to a protein with a mol. mass of 70 kDa (p70). Several lines of evidence in this study suggested that the oligosaccharide region of LOS played an important role in LOS binding to the p70 of HepG2 cells. In addn., the authors show that this human LOS receptor has some similarities to the gonococcal Opa proteins.

09/699224

L7 ANSWER 8 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1992:233423 HCAPLUS

DOCUMENT NUMBER: 116:233423

TITLE: Lipooligosaccharides (LOS) of some Haemophilus species **mimic** human

AUTHOR(S):

glycosphingolipids, and some LOS are sialylated  
Mandrell, Robert E.; McLaughlin, Robert; Abu  
Kwaik, Yousef; Lesse, Alan; Yamasaki, Ryohei;  
Gibson, Bradford; Spinola, Stanley M.; Apicella,  
Michael A.

CORPORATE SOURCE:

Cent. Immunochem., Univ. California, San  
Francisco, CA, 94143, USA

SOURCE:

Infection and Immunity (1992), 60(4), 1322-8  
CODEN: INFIBR; ISSN: 0019-9567

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The lipooligosaccharides (LOS) of strains of *H. ducreyi*, *Neisseria gonorrhoeae*, *N. meningitidis*, and *N. lactamica* contain **epitopes** that are antigenically and structurally similar to carbohydrates present in human glycosphingolipids. LOS from strains of *H. influenzae* and *H. influenzae* biogroup *aegyptius* were tested for the binding of monoclonal antibodies (MAbs) that bind to human glycosphingolipids possessing Gal.beta.1-4GlcNAc (Mab 3F11) and Gal.alpha.1-4Gal.beta.1-4Glc (Mab anti-Pk). In solid-phase RIAs, the LOS of 18 of 19 *H. influenzae* type b (Hib), 8 of 19 nontypeable *H. influenzae*, and 10 of 20 *H. influenzae* biogroup *aegyptius* strains bound Mab anti-Pk.3F11. The LOS of 13 of 19 Hib, 10 of 16 nontypeable *H. influenzae*, and 2 of 18 *H. influenzae* biogroup *aegyptius* strains bound Mab 3 F11. Neuraminidase treatment of the strains increased the binding of Mab 3F11 by more than twofold in 47% of the *H. influenzae* strains, suggesting that sialic acid occluded the LOS structure recognized by Mab 3F11. The material released from neuraminidase-treated Hib LOS was confirmed to be sialic acid by high-performance anion-exchange chromatog. A recombinant plasmid contg. genes involved in Hib LOS biosynthesis directed the expression (assembly) of the 3F11 epitope in *Escherichia coli*. These studies demonstrate that *H. influenzae* and *H. influenzae* biogroup *aegyptius* express at least two LOS epitopes that are similar to those present in human glycosphingolipids. Sialic acid was present on the LOS of some *H. influenzae* strains and prevented the binding of Mab 3F11 to its epitope. The oligosaccharide portion of sialylated LOS may also resemble sialylated oligosaccharides present in human glycosphingolipids (gangliosides).

L7 ANSWER 9 OF 9 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1991:40563 HCAPLUS

DOCUMENT NUMBER: 114:40563

TITLE: Lipooligosaccharide epitopes shared among gram-negative non-enteric mucosal pathogens

AUTHOR(S):

Campagnari, Anthony A.; Spinola, Stanley M.;  
Lesse, Alan J.; Kwaik, Yousef Abu; Mandrell,  
Robert E.; Apicella, Michael A.

CORPORATE SOURCE:

Sch. Med., State Univ. New York, Buffalo, NY,  
USA

SOURCE:

Microbial Pathogenesis (1990), 8(5), 353-62  
CODEN: MIPAEV; ISSN: 0882-4010

09/699224

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB The non-enteric Gram-neg. human pathogens, *Branhamella catarrhalis*, *Haemophilus ducreyi*, *H. influenzae*, *Neisseria gonorrhoeae*, and *N. meningitidis*, do not have repeating O-antigens as part of their principal surface glycolipid, the lipooligosaccharide (LOS). Because they have similar LOS structures, the authors studied the conservation of LOS oligosaccharide epitopes among these organisms. Twenty-one monoclonal antibodies (mAbs) generated by immunizing mice with *H. influenzae*, *N. gonorrhoeae*, and *N. meningitidis* were studied for cross reactivity. Five mAbs generated against non-typable *H. influenzae* were the only strain-specific antibodies. Ten mAbs reacted to LOS epitope(s) common to a genus or species, and 6 mAbs bound to epitope(s) on the LOS of strains from different genera. Some cross reactive mAbs bound to LOS bands of similar mol. wts., while others bound to bands of varying mol. wts. MAb 3F11, whose **epitope mimics** a human blood-group antigen, bound to a 4.8 kDa LOS band in *N. gonorrhoeae* and *H. ducreyi*, 2 pathogens that infect genital epithelium. MAb 3D9, whose **epitope** consists of 2-keto-3-deoxyoctulosonic acid (KDO), reacted with different LOS bands in *N. gonorrhoeae*, *H. influenzae*, and some R mutants of *S. minnesota*. A 14 kb restriction fragment contg. lipooligosaccharide synthesis genes responsible for the assembly of the 3D9 **epitope** in *H. influenzae* hybridized to all *H. influenzae* strains tested but did not hybridize to *gonococcal* and *S. minnesota* strains that expressed this **epitope**. Thus, conserved LOS epitope(s) exist among different species and genera of non-enteric human pathogens and different genetic mechanisms may have evolved in these pathogens to assemble some of these conserved epitopes.

(FILE 'MEDLINE', BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER' ENTERED AT 11:31:57 ON 11 FEB 2003)

L8 26 S L7

L9 13 DUP REM L8 (13 DUPLICATES REMOVED)

L9 ANSWER 1 OF 13 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 2002404388 MEDLINE  
DOCUMENT NUMBER: 22148650 PubMed ID: 12153569  
TITLE: GNA33 from *Neisseria meningitidis* serogroup B encodes a membrane-bound lytic transglycosylase (MltA).  
AUTHOR: Jennings Gary T; Savino Silvana; Marchetti Elisa; Arico Beatrice; Kast Thomas; Baldi Lucia; Ursinus Astrid; Holtje Joachim-Volker; Nicholas Robert A; Rappuoli Rino; Grandi Guido  
CORPORATE SOURCE: I.R.I.S., Chiron S.p.A., Siena, Italy.. jennings@cytos.com  
SOURCE: EUROPEAN JOURNAL OF BIOCHEMISTRY, (2002 Aug) 269 (15) 3722-31.  
Journal code: 0107600. ISSN: 0014-2956.  
PUB. COUNTRY: Germany: Germany, Federal Republic of  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 200209  
ENTRY DATE: Entered STN: 20020803  
Last Updated on STN: 20020910  
Entered Medline: 20020909

Searcher : Shears 308-4994

AB In a previous study, we used the genome of serogroup B Meningococcus to identify novel vaccine candidates. One of these molecules, GNA33, is well conserved among Meningococcus B strains, other Meningococcus serogroups and **Gonococcus** and induces bactericidal antibodies as a result of being a **mimetic** antigen of the PorA **epitope** P1.2. GNA33 encodes a 48-kDa lipoprotein that is 34.5% identical with membrane-bound lytic transglycosylase A (MltA) from Escherichia coli. In this study, we expressed GNA33, i.e. Meningococcus MltA, as a lipoprotein in E. coli. The lipoprotein nature of recombinant MltA was demonstrated by incorporation of [3H]palmitate. MltA lipoprotein was purified to homogeneity from E. coli membranes by cation-exchange chromatography. Muramidase activity was confirmed when MltA was shown to degrade insoluble murein sacculi and unsubstituted glycan strands. HPLC analysis demonstrated the formation of 1,6-anhydrodisaccharide tripeptide and tetrapeptide reaction products, confirming that the protein is a lytic transglycosylase. Optimal muramidase activity was observed at pH 5.5 and 37 degrees C and enhanced by Mg<sup>2+</sup>, Mn<sup>2+</sup> and Ca<sup>2+</sup>. The addition of Ni<sup>2+</sup> and EDTA had no significant effect on activity, whereas Zn<sup>2+</sup> inhibited activity. Triton X-100 stimulated activity 5.1-fold. Affinity chromatography indicated that MltA interacts with penicillin-binding protein 2 from Meningococcus B, and, like MltA from E. coli, may form part of a multienzyme complex.

L9 ANSWER 2 OF 13 WPIDS (C) 2003 THOMSON DERWENT  
 ACCESSION NUMBER: 2001-343473 [36] WPIDS  
 DOC. NO. CPI: C2001-106332  
 TITLE: New peptide **mimics** of conserved **gonococcal epitopes** not present in human blood group antigens, useful for prophylaxis of Neisseria **gonorrhoeae** infections.  
 DERWENT CLASS: B04  
 INVENTOR(S): GULATI, S; NGAMPASUTADOL, J; RICE, P A  
 PATENT ASSIGNEE(S): (GULA-I) GULATI S; (NGAM-I) NGAMPASUTADOL J; (RICE-I) RICE P A  
 COUNTRY COUNT: 93  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001032692	A2	20010510	(200136)*	EN	57
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC					
MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE					
DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG					
KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ					
PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU					
ZA ZW					
AU 2001012420	A	20010514	(200149)		

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001032692	A2	WO 2000-US29749	20001027
AU 2001012420	A	AU 2001-12420	20001027

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001012420	A Based on	WO 200132692

PRIORITY APPLN. INFO: US 1999-162491P 19991029

AN 2001-343473 [36] WPIDS

AB WO 200132692 A UPAB: 20010628

NOVELTY - New peptide **mimics** of conserved **gonococcal** which are not present in human blood group antigens are useful for immunizing against *Neisseria gonorrhoeae* infections.

DETAILED DESCRIPTION - A peptide **mimic** of a conserved **gonococcal epitope** not found on human blood group antigens, where the peptide **mimic** is capable of inducing an immune response against the conserved **gonococcal epitope**, is new.

INDEPENDENT CLAIMS are included for the following:

(a) methods and compositions using the peptide **mimics** for immunizing against *Neisseria gonorrhoeae* infections; and

(b) a method for increasing the antigenicity of the peptide **mimics** by coupling the peptide **mimic** to a complement protein.

ACTIVITY - None given.

MECHANISM OF ACTION - Vaccine; Peptide **mimic** (especially binding to monoclonal antibody 2C7).

USE - For immunizing against *Neisseria gonorrhoeae* infection.  
Dwg.0/13

L9 ANSWER 3 OF 13 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.

ACCESSION NUMBER: 2001231775 EMBASE

TITLE: Molecular **mimicry** of host structures by lipooligosaccharides of *Neisseria meningitidis*: Characterization of sialylated and nonsialylated lacto-N-neotetraose (Gal.beta.1-4GlcNac.beta.1-3Gal.beta.1-4Glc) structures in lipooligosaccharides using monoclonal antibodies and specific lectins.

AUTHOR: Tsai C.-M.

CORPORATE SOURCE: C.-M. Tsai, Division of Bacterial Products, Ctr. for Biologics Evaluation/Res., FDA, Bethesda, MD 20892, United States

SOURCE: Advances in Experimental Medicine and Biology, (2001) 491/- (525-542).

Refs: 79

ISSN: 0065-2598 CODEN: AEMBAP

COUNTRY: United States

DOCUMENT TYPE: Journal; Conference Article

FILE SEGMENT: 004 Microbiology  
005 General Pathology and Pathological Anatomy  
026 Immunology, Serology and Transplantation

LANGUAGE: English

SUMMARY LANGUAGE: English

AB *Neisseria meningitidis* lipooligosaccharides (LOSs) are classified into 12 immunotypes. Most LOSs are heterogeneous in having a few

components by SDS-PAGE analysis that differ antigenically and chemically. We have utilized a monoclonal antibody that recognizes lacto-N-neotetraose (LNnT) and the lectin, Maackia amurensis leucoagglutinin (MAL), which is specific for NeuNAc.alpha.2-3Gal.beta.1-4GlcNAc trisacchride sequence to characterize the 12 N. meningitidis LOSs. Using the combination of ELISA, SDS-PAGE, Western blotting, and other chemical analyses, we have shown that the LNnT (Gal.beta.1-4GlcNAc.beta.1-3Gal.beta.1-4Glc) sequence was present in the 4.0-kDa LOS components of seven immunotype LOSs seen on SDS-PAGE. Six of the seven LNnT-containing LOSs also bound the MAL lectin indicating that N-acetylneuraminic acid (NeuNAc) was .alpha.2,3-linked to the LNnT sequence in the LOSs. Sialylation of the terminal Gal of LNnT-containing 4.0-kDa component caused only a slight increase in its apparent MW to 4100 on SDS-PAGE. The one LOS with the LNnT-containing component, but not MAL-binding, was from a Group A N. meningitidis, which does not synthesize CMP-NeuNAc, the substrate needed for LOS sialylation. Thus, it is concluded (1) a common LNnT sequence is present in seven immunotype LOSs in addition to their immunotype **epitopes**, and (2) NeuNAc is .alpha.2->3 linked to the terminal Gal of LNnT if a organism synthesizes CMP-NeuNAc such as Groups B and C organisms. The above conclusions are consistent with the published structures of N. meningitidis LOSs. The results also demonstrate that specific carbohydrate-binding lectins and monoclonal antibodies can be used as simple yet effective tools to characterize specific carbohydrate sequences in a bacterial LOS or LPS such as N. meningitidis LOS. It is intriguing that N. meningitidis LOSs **mimic** certain glycosphingolipids, such as paragloboside (LNnT-ceramide) and sialylparagloboside, and some glycoproteins of the host in having LNnT and N-acetylglucosamine sequences respectively with or without .alpha.2->3 linked NeuNAc. Epidemiological studies of N. meningitidis suggest that the molecular **mimicry** of host structures by its LOS plays a role in the pathogenesis of N. meningitidis by helping the organism to evade host immune defenses in man. The molecular **mimicry** of host structures by LOS or LPS is also found in other human pathogens such as N. **gonorrhoeae**, Haemophilus ducreyi, H. influenzae, Moraxella catarrhalis, Campylobacter jejuni, and Helicobacter pylori.

L9 ANSWER 4 OF 13 MEDLINE  
 ACCESSION NUMBER: 2002139825 MEDLINE  
 DOCUMENT NUMBER: 21867557 PubMed ID: 11878767  
 TITLE: Strategies for **mimicking** Neisserial  
 saccharide epitopes as vaccines.  
 AUTHOR: Gulati S; Ngampasutadol J; Yamasaki R; McQuillen D P;  
 Rice P A  
 CORPORATE SOURCE: Evans Biomedical Research Center, Department of  
 Medicine, Boston University, MA, USA.  
 CONTRACT NUMBER: AI-32725 (NIAID)  
 SOURCE: INTERNATIONAL REVIEWS OF IMMUNOLOGY, (2001) 20 (2)  
 229-50. Ref: 96  
 Journal code: 8712260. ISSN: 0883-0185.  
 PUB. COUNTRY: Switzerland  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals



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ENTRY MONTH: 200205  
ENTRY DATE: Entered STN: 20020307  
Last Updated on STN: 20020604  
Entered Medline: 20020528

AB Monoclonal antibody (mAb) 2C7 recognizes a conserved and widely expressed oligosaccharide (OS) **epitope** on *Neisseria gonorrhoeae*. This OS **epitope** evokes a significant bactericidal and opsonic immune response after natural infection and vaccination. The OS **epitope** structure represents an excellent target for a potential protective **gonococcal** vaccine. Because carbohydrate antigens are T-cell independent, inducing weak antibody responses, OS molecules are not useful immunogens. We developed and examined two different strategies to **mimic** the 2C7 OS **epitope**: (i) an anti-idiotope (mAb CA1); and (ii) a peptide (PEP-1). These surrogate immunogens elicited antibody responses in mice (CA1 and PEP-1) and rabbits (CA1) that were bactericidal in vitro against **gonococci**. Both CA1 and PEP-1 are true immunologic **mimics** of OS and may form a basis for the development of vaccine candidates for human immunization against *N. gonorrhoeae*.

L9 ANSWER 5 OF 13 MEDLINE DUPLICATE 2  
ACCESSION NUMBER: 97094126 MEDLINE  
DOCUMENT NUMBER: 97094126 PubMed ID: 8940214  
TITLE: Experimental immunization with a monoclonal anti-idiotope antibody that **mimics** the *Neisseria gonorrhoeae* lipooligosaccharide **epitope** 2C7.  
AUTHOR: Gulati S; McQuillen D P; Sharon J; Rice P A  
CORPORATE SOURCE: Department of Medicine, Boston Medical Center, Massachusetts 02118, USA.  
CONTRACT NUMBER: AI-01061 (NIAID)  
AI-32725 (NIAID)  
AI-33087 (NIAID)  
SOURCE: JOURNAL OF INFECTIOUS DISEASES, (1996 Dec) 174 (6) 1238-48.  
Journal code: 0413675. ISSN: 0022-1899.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals  
ENTRY MONTH: 199701  
ENTRY DATE: Entered STN: 19970128  
Last Updated on STN: 19970128  
Entered Medline: 19970108

AB An anti-idiotope monoclonal antibody (MAB), called CA1 (Ab2), was produced in mice against MAB 2C7, which recognizes a widely in vivo-expressed **gonococcal** lipooligosaccharide (LOS) **epitope**. Mice immunized with MAB CA1 initially had a 2.5-fold increase in IgG (12-fold after a booster) but no increase in IgM anti-LOS (Ab1') antibody. Control mice immunized with LOS had a 4.5-fold rise in IgG and 4-fold rise in IgM anti-LOS antibody. In rabbits, MAB CA1 elicited a 9-fold rise in IgG and a 3.3-fold rise in IgM anti-LOS (Ab1') antibody. Ab1' antibody bactericidal activity was 1-2 logs greater than that produced by immunization with LOS. Ab1' mediated complete human polymorphonuclear leukocyte phagocytosis of 2C7 **epitope**-positive (but not 2C7 **epitope**-negative) **gonococci**. MAB CA1 acts as a

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molecular surrogate (Ab2beta) for the nominal LOS antigen and may form the basis for vaccine candidates for human immunization against *Neisseria gonorrhoeae*.

L9 ANSWER 6 OF 13 MEDLINE DUPLICATE 3  
ACCESSION NUMBER: 95286259 MEDLINE  
DOCUMENT NUMBER: 95286259 PubMed ID: 7539407  
TITLE: A lipooligosaccharide-binding site on HepG2 cells similar to the gonococcal opacity-associated surface protein Opa.  
AUTHOR: Porat N; Apicella M A; Blake M S  
CORPORATE SOURCE: Laboratory of Bacterial Pathogenesis and Immunology, Rockefeller University, New York, New York 10021, USA.  
CONTRACT NUMBER: AI 18367 (NIAID)  
AI 19469 (NIAID)  
SOURCE: INFECTION AND IMMUNITY, (1995 Jun) 63 (6) 2164-72.  
Journal code: 0246127. ISSN: 0019-9567.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199507  
ENTRY DATE: Entered STN: 19950713  
Last Updated on STN: 19970203  
Entered Medline: 19950705

AB The lacto-N-neotetraose-containing lipooligosaccharide (LOS) present on the surface of most *Neisseria gonorrhoeae* organisms may serve many important functions in *gonococcal* pathogenesis. This surface glycolipid contains the cross-reactive **epitope** to human paragloboside and can be sialylated by *gonococci* grown in the presence of CMP-N-acetylneuraminic acid. Another possible role for this glycolipid could be to **mimic** human asialocarbohydrates and act as a ligand for asialoglycoprotein receptors contained on numerous human cells. The most noted of this large family of receptors is that expressed on the surface of hepatic cells. In a model cell system, using the hepatoma tissue culture cell line HepG2, we wanted to investigate if the presence of this asialoglycoprotein receptor influenced the adherence and/or invasion of *gonococci* expressing the lacto-N-neotetraose structure. Piliated variants of the *gonococcal* wild-type strain 1291 and its isogenic LOS mutant 1291E were used in adherence-invasion assays. This *gonococcal* strain is somewhat unusual in that it expresses large amounts of predominantly one species of LOS, thus reducing the complexity of interpreting the data. The data from these assays suggested that the Gal(beta 1-4)GlcNAc(beta 1-3)Gal(beta 1-4)Glc carbohydrate structure on the wild-type LOS affected the adherence-invasion of *gonococci* into the HepG2 cells. In studies to determine whether the major hepatic asialoglycoprotein receptor was involved in these interactions, we found that the HepG2 cells contained two receptors which bound *gonococcal* LOS. One of these was the asialoglycoprotein receptor, and the data concerning this receptor will be reported elsewhere. The data on the second receptor are reported here. Purified, 125I-labeled *gonococcal* LOS was used to identify specific high-affinity LOS-binding sites. These binding experiments revealed one major binding site corresponding to a protein with a molecular mass of 70 kDa (p70). Several lines of

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evidence in this study suggested that the oligosaccharide region of LOS played an important role in LOS binding to the p70 of HepG2 cells. In addition, we show that this human LOS receptor has some similarities to the **gonococcal** Opa proteins.

L9 ANSWER 7 OF 13 WPIDS (C) 2003 THOMSON DERWENT  
ACCESSION NUMBER: 1994-332827 [41] WPIDS  
DOC. NO. NON-CPI: N1994-261272  
DOC. NO. CPI: C1994-151346  
TITLE: New anti-idiotypic monoclonal antibody  
**mimicking** Neisseria **gonorrhoeae**  
**epitope** - on oligosaccharide, and cells  
producing them, useful in prevention, treatment and  
diagnosis of **gonorrhoea**.  
DERWENT CLASS: B04 D16 S03  
INVENTOR(S): GULATI, S; MCQUILLEN, D P; RICE, P A  
PATENT ASSIGNEE(S): (HEAL-N) HEALTH & HOSPITALS CITY BOSTON; (GULA-I)  
GULATI S; (MCQU-I) MCQUILLEN D P; (RICE-I) RICE P A  
COUNTRY COUNT: 55  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9422479	A1	19941013	(199441)*	EN	90
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KG KP					
KR KZ LK LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK					
TJ TT UA UZ VN					
AU 9465304	A	19941024	(199505)		
US 5476784	A	19951219	(199605)		31
EP 695192	A1	19960207	(199610)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
CN 1124456	A	19960612	(199747)		
NZ 265000	A	19971219	(199807)		
SG 48816	A1	19980518	(199834)		
AU 698908	B	19981112	(199906)		
US 5888509	A	19990330	(199920)		
US 5939067	A	19990817	(199939)		
US 6074641	A	20000613	(200035)		
US 6099839	A	20000808	(200040)		
EP 695192	B1	20010228	(200113)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
DE 69426767	E	20010405	(200126)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9422479	A1	WO 1994-US3794	19940406
AU 9465304	A	AU 1994-65304	19940406
US 5476784	A	US 1993-43663	19930406
EP 695192	A1	EP 1994-912962	19940406
		WO 1994-US3794	19940406
CN 1124456	A	CN 1994-192217	19940406
NZ 265000	A	NZ 1994-265000	19940406
		WO 1994-US3794	19940406
SG 48816	A1	SG 1996-1965	19940406
AU 698908	B	AU 1994-65304	19940406

Searcher : Shears 308-4994

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US 5888509	A	Div ex	US 1993-43663	19930406
		Cont of	US 1995-486722	19950607
			US 1997-915304	19970819
US 5939067	A	Cont of	US 1993-43663	19930406
		Cont of	US 1995-487414	19950607
			US 1997-908768	19970808
US 6074641	A	Cont of	US 1993-43663	19930406
		Cont of	US 1995-486722	19950607
		Cont of	US 1997-915304	19970819
			US 1999-280216	19990329
US 6099839	A	Cont of	US 1993-43663	19930406
		Cont of	US 1995-487414	19950607
		Cont of	US 1997-908768	19970808
			US 1999-337900	19990621
EP 695192	B1		EP 1994-912962	19940406
			WO 1994-US3794	19940406
DE 69426767	E		DE 1994-626767	19940406
			EP 1994-912962	19940406
			WO 1994-US3794	19940406

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9465304	A	Based on	WO 9422479
EP 695192	A1	Based on	WO 9422479
NZ 265000	A	Based on	WO 9422479
AU 698908	B	Previous Publ.	AU 9465304
		Based on	WO 9422479
US 5888509	A	Div ex	US 5476784
US 5939067	A	Cont of	US 5476784
US 6074641	A	Cont of	US 5476784
		Cont of	US 5888509
US 6099839	A	Cont of	US 5476784
		Cont of	US 5939067
EP 695192	B1	Based on	WO 9422479
DE 69426767	E	Based on	EP 695192
		Based on	WO 9422479

PRIORITY APPLN. INFO: US 1993-43663 19930406; US 1995-486722 19950607; US 1997-915304 19970819; US 1995-487414 19950607; US 1997-908768 19970808; US 1999-280216 19990329; US 1999-337900 19990621

AN 1994-332827 [41] WPIDS

AB WO 9422479 A UPAB: 19941206

Anti-idiotypic monoclonal antibody (Ab2), or its fragments, with an antibody binding site specific for the isotype of second antibody (Ab2) which bonds to an oligosaccharide **epitope** of *Nisseria gonorrhoeae* (N.g.) that is not present in human blood gp. antigens is new. Also claimed are cells that produce Ab2 and its fragments.

Ab1 binds to an epitope recognised by monoclonal antibody 2C7. Ab2 is esp. produced by hybridoma ATCC HB11311, but may also be a recombinant, opt. chimeric or humanised, antibody. To detect infection, a test sample is incubated with immobilised anti-Ig antibodies, then with labelled Ab2, followed by washing and detection of bound label.

USE - Ab2 is used to prevent (vaccination) and diagnose N.g. infections, while anti-anti-idiotypic antibodies (Ab3) raised against Ab2 can be used for treatment and diagnosis. In particular Ab2 is used to prevent gonococcal salpingitis and to prevent transmission by asymptomatic hosts. Ab2 or Ab3 are administered at 0.1-10 (pref. 1) mg/kg, one or twice a day for 1 week, partic. intravenously.

Mice were immunised intraperitoneally with 10 microg Ab2 and a second injection given 14 days later. The fig. shows that a strong Ab3 (IgG; anti-LOS) response was induced as detected by ELISA, i.e. 12 times higher than the preimmunisation titre 21 days after immunisation. LOS induced a weaker response (4.5 times the preimmunisation titre). Ab2 did not produce an IgM anti-LOS response, although LOS did (briefly).

Dwg.2/15

ABEQ US 5476784 A UPAB: 19960205

An anti-idiotypic monoclonal antibody, or binding fragment thereof, characterized by an antigen combining site which immunospecifically binds to the idiotype of a second antibody which binds to an oligosaccharide **epitope** of *N. gonorrhoeae*, which oligosaccharide **epitope** is not present in human blood gp. antigens, wherein the oligosaccharide **epitope** specifically binds to monoclonal antibody 2C7 produced by hybridoma HB-11859.

Dwg.0/15

L9 ANSWER 8 OF 13 MEDLINE DUPLICATE 4  
 ACCESSION NUMBER: 92192799 MEDLINE  
 DOCUMENT NUMBER: 92192799 PubMed ID: 1372291  
 TITLE: Lipooligosaccharides (LOS) of some Haemophilus species **mimic** human glycosphingolipids, and some LOS are sialylated.  
 AUTHOR: Mandrell R E; McLaughlin R; Aba Kwaik Y; Lesse A; Yamasaki R; Gibson B; Spinola S M; Apicella M A  
 CORPORATE SOURCE: Centre for Immunochemistry, University of California, San Francisco 94143.  
 CONTRACT NUMBER: AI21620 (NIAID)  
 AI22998 (NIAID)  
 AI24616 (NIAID)  
 +  
 SOURCE: INFECTION AND IMMUNITY, (1992 Apr) 60 (4) 1322-8.  
 Journal code: 0246127. ISSN: 0019-9567.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199204  
 ENTRY DATE: Entered STN: 19920509  
 Last Updated on STN: 19970203  
 Entered Medline: 19920423

AB The lipooligosaccharides (LOS) of strains of Haemophilus ducreyi, Neisseria **gonorrhoeae**, Neisseria meningitidis, and Neisseria lactamica contain **epitopes** that are antigenically and structurally similar to carbohydrates present in human glycosphingolipids. LOS from strains of Haemophilus influenzae and H. influenzae biogroup aegyptius were tested for the binding of monoclonal antibodies (MAbs) that bind to human glycosphingolipids possessing Gal beta 1-4GlcNAc (MAb 3F11) and Gal alpha 1-4Gal beta 1-4Glc (MAb anti-Pk). In solid-phase radioimmunoassays, the LOS of

18 of 19 H. influenzae type b (Hib), 8 of 19 nontypeable H. influenzae, and 10 of 20 H. influenzae biogroup aegyptius strains bound MAb anti-Pk. The LOS of 13 of 19 Hib, 10 of 16 nontypeable H. influenzae, and 2 of 18 H. influenzae biogroup aegyptius strains bound MAb 3F11. Neuraminidase treatment of the strains increased the binding of MAb 3F11 by more than twofold in 47% of the H. influenzae strains, suggesting that sialic acid occluded the LOS structure recognized by MAb 3F11. The material released from neuraminidase-treated Hib LOS was confirmed to be sialic acid by high-performance anion-exchange chromatography. A recombinant plasmid containing genes involved in Hib LOS biosynthesis directed the expression (assembly) of the 3F11 **epitope** in Escherichia coli. These studies demonstrate that H. influenzae and H. influenzae biogroup aegyptius express at least two LOS **epitopes** that are similar to those present in human glycosphingolipids. Sialic acid was present on the LOS of some H. influenzae strains and prevented the binding of MAb 3F11 to its **epitope**. The oligosaccharide portion of sialylated LOS may also resemble sialylated oligosaccharides present in human glycosphingolipids (gangliosides).

L9 ANSWER 9 OF 13 MEDLINE DUPLICATE 5  
 ACCESSION NUMBER: 92011723 MEDLINE  
 DOCUMENT NUMBER: 92011723 PubMed ID: 1918047  
 TITLE: The structural basis for pyocin resistance in Neisseria gonorrhoeae lipooligosaccharides.  
 AUTHOR: John C M; Griffiss J M; Apicella M A; Mandrell R E; Gibson B W  
 CORPORATE SOURCE: Department of Pharmaceutical Chemistry, University of California, San Francisco 94143.  
 CONTRACT NUMBER: AI21620 (NIAID)  
 AI24616 (NIAID)  
 AI8384 (NIAID)  
 +  
 SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (1991 Oct 15) 266 (29) 19303-11.  
 Journal code: 2985121R. ISSN: 0021-9258.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199111  
 ENTRY DATE: Entered STN: 19920124  
 Last Updated on STN: 19920124  
 Entered Medline: 19911114  
 AB Pyocin resistance in a strain of Neisseria **gonorrhoeae** has been found to be associated with structural differences in the oligosaccharide moieties of the **gonococcal** outer membrane lipooligosaccharides (LOS). N. **gonorrhoeae** strain 1291 had been treated with several pyocins, usually lethal bacteriocins produced by Pseudomonas aeruginosa, and a series of surviving mutants were selected. The LOS of these pyocin-resistant mutants had altered electrophoretic mobilities in sodium dodecyl sulfate-polyacrylamide gels (Dudas, K. C., and Apicella, M. A. (1988) Infect. Immun. 56, 499-504). Structural analyses of the oligosaccharide portions of the wild-type (1291 wt) and five pyocin-resistant strains (1291a-e) by liquid secondary ion mass spectrometry, tandem mass spectrometry, and methylation analysis

revealed that four of the mutant strains make oligosaccharides that differ from the wild-type LOS by successive saccharide deletions (1291a,c-e) and, in the oligosaccharide of 1291b, by the addition of a terminal Gal to the 1291c structure. The composition, sequence, and linkages of the terminal tetrasaccharide of the wild-type LOS are the same as the lacto-N-neotetraose terminus of the human paragloboside (Gal beta 1----4GlcNAc beta 1----3Gal beta 1----4Glc-ceramide), and both glycolipids bound the same monoclonal antibodies O6B4/3F11 that recognize this terminal **epitope**. None of the pyocin-resistant mutants bound this antibody. The 1291b LOS bound a monoclonal antibody that is specific for Gal alpha 1----4Gal beta 1----4Glc-ceramide (Pk glycosphingolipid) and shared a common composition, sequence, and linkages with this latter glycosphingolipid. Organisms that bound the anti-Pk monoclonal occurred at the rate of approximately 1/750 among the wild-type parent strain. This structural information supports the conclusion that treatment with pyocin selects for mutants with truncated LOS structures and suggests that the oligosaccharides contained in the LOS of the wild-type strain and 1291b **mimic** those of human glycosphingolipids.

L9 ANSWER 10 OF 13 MEDLINE DUPLICATE 6  
 ACCESSION NUMBER: 91014645 MEDLINE  
 DOCUMENT NUMBER: 91014645 PubMed ID: 1699109  
 TITLE: Lipooligosaccharide epitopes shared among  
 gram-negative non-enteric mucosal pathogens.  
 AUTHOR: Campagnari A A; Spinola S M; Lesse A J; Kwaik Y A;  
 Mandrell R E; Apicella M A  
 CORPORATE SOURCE: Department of Medicine, State University of New York,  
 Buffalo 14215.  
 CONTRACT NUMBER: AI 18384 (NIAID)  
 AI 21620 (NIAID)  
 AI 24616 (NIAID)  
 +  
 SOURCE: MICROBIAL PATHOGENESIS, (1990 May) 8 (5) 353-62.  
 Journal code: 8606191. ISSN: 0882-4010.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199010  
 ENTRY DATE: Entered STN: 19910117  
 Last Updated on STN: 19960129  
 Entered Medline: 19901027  
 AB The non-enteric Gram-negative human pathogens, *B. catarrhalis*, *H. ducreyi*, *H. influenzae*, *N. gonorrhoeae* and *N. meningitidis*, do not have repeating O-antigens as part of their principle surface glycolipid, the lipooligosaccharide (LOS). Because they have similar LOS structures, we studied the conservation of LOS oligosaccharide **epitopes** among these organisms. Twenty-one monoclonal antibodies (mAbs) generated by immunizing mice with *H. influenzae*, *N. gonorrhoeae* and *N. meningitidis* were studied for cross reactivity. Five mAbs generated against non-typable *H. influenzae* were the only strain-specific antibodies. Ten mAbs reacted to LOS **epitope(s)** common to a genera or species, and six mAbs bound to **epitope(s)** on the LOS of strains from different genera. Some cross reactive mAbs bound to LOS bands of similar molecular weights, while others bound to bands of

varying molecular weights. mAb 3F11, whose **epitope** **mimics** a human blood-group antigen, bound to a 4.8 kDa LOS band in *N. gonorrhoeae* and *H. ducreyi*, two pathogens that infect genital epithelium. mAb 3D9, whose **epitope** consists of 2-keto-3-deoxyoctulosonic acid (KDO), reacted with different LOS bands in *N. gonorrhoeae*, *H. influenzae* and some R mutants of *S. minnesota*. A 14 kb restriction fragment containing lipooligosaccharide synthesis genes responsible for the assembly of the 3D9 **epitope** in *H. influenzae* hybridized to all *H. influenzae* strains tested but did not hybridize to **gonococcal** and *S. minnesota* strains that expressed this **epitope**. These studies demonstrate that conserved LOS **epitope(s)** exist among different species and genera of non-enteric human pathogens and that different genetic mechanisms may have evolved in these pathogens to assemble some of these conserved **epitopes**.

L9 ANSWER 11 OF 13 MEDLINE  
 ACCESSION NUMBER: 91088978 MEDLINE  
 DOCUMENT NUMBER: 91088978 PubMed ID: 2124726  
 TITLE: Gonococci are survivors.  
 AUTHOR: Sparling P F; Tsai J; Cornelissen C N  
 CORPORATE SOURCE: Department of Medicine, School of Medicine,  
 University of North Carolina, Chapel Hill 27599-7005.  
 SOURCE: SCANDINAVIAN JOURNAL OF INFECTIOUS DISEASES.  
 SUPPLEMENTUM, (1990) 69 125-36. Ref: 94  
 Journal code: 0251025. ISSN: 0300-8878.  
 PUB. COUNTRY: Sweden  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199102  
 ENTRY DATE: Entered STN: 19910322  
 Last Updated on STN: 19960129  
 Entered Medline: 19910205

AB **Gonococci** are capable of prolonged survival in untreated infection, and frequently reinfect persons with repeated and recent infection, despite considerable mucosal and systemic immune response to infection. Multiple mechanisms help to explain how this is achieved, including variations in surface antigen expression; production of an extracellular IgA protease; employment of antigens that preferentially stimulate host production of antibodies that block the killing activity of other antibodies; masking of critical **epitopes** by chemical modification of surface structures; molecular **mimicry** of host antigens; shedding of antigens in the form of outer membrane blebs; and, subverting certain nonimmunological antimicrobial defenses to the use of the bacterium. Moreover, **gonococci** are capable of considerable phenotypic adaptation to changing environmental conditions in vivo. This paper briefly reviews these concepts.

L9 ANSWER 12 OF 13 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V.  
 ACCESSION NUMBER: 90339009 EMBASE  
 DOCUMENT NUMBER: 1990339009  
 TITLE: Gonococci are survivors.  
 AUTHOR: Sparling P.F.; Tsai J.; Cornelissen C.N.



09/699224

CORPORATE SOURCE: Department of Medicine, School of Medicine,  
University of North Carolina, CB No. 7005, Chapel  
Hill, NC 27599-7005, United States

SOURCE: Scandinavian Journal of Infectious Diseases,  
Supplement, (1990) 22/69 (125-136).  
ISSN: 0300-8878 - CODEN: SJISAH

COUNTRY: Sweden

DOCUMENT TYPE: Journal; Conference Article

FILE SEGMENT: 004 Microbiology

LANGUAGE: English

SUMMARY LANGUAGE: English

AB **Gonococci** are capable of prolonged survival in untreated infection, and frequently reinfect persons with repeated and recent infection, despite considerable mucosal and systemic immune response to infection. Multiple mechanisms help to explain how this is achieved, including variations in surface antigen expression; production of an extracellular IgA protease; employment of antigens that preferentially stimulate host production of antibodies that block the killing activity of other antibodies; masking of critical **epitopes** by chemical modification of surface structures; molecular **mimicry** of host antigens; shedding of antigens in the form of outer membrane blebs; and, subverting certain nonimmunological antimicrobial defenses to the use of the bacterium. Moreover, **gonococci** are capable of considerable phenotypic adaptation to changing environmental conditions in vivo. This paper briefly reviews these concepts.

L9 ANSWER 13 OF 13 MEDLINE DUPLICATE 7

ACCESSION NUMBER: 89036004 MEDLINE

DOCUMENT NUMBER: 89036004 PubMed ID: 3141555

TITLE: Characterization and specificity of antibodies to  
protein I of *Neisseria gonorrhoeae* produced by  
injection with various protein I-adjuvant  
preparations.

AUTHOR: Wetzler L M; Blake M S; Gotschlich E C

CORPORATE SOURCE: Laboratory of Bacteriology and Immunology,  
Rockefeller University, New York, New York 10021.

CONTRACT NUMBER: AI-10615 (NIAID)

AI-18637 (NIAID)

AI-19469 (NIAID)

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SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (1988 Nov 1) 168  
(5) 1883-97.

Journal code: 2985109R. ISSN: 0022-1007.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

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FILE SEGMENT: Priority Journals

ENTRY MONTH: 198812

ENTRY DATE: Entered STN: 19900308

Last Updated on STN: 19970203

Entered Medline: 19881220

AB A major goal of **gonococcal** research is the development of  
a **gonorrheal** vaccine. A vaccine candidate is the major  
outer membrane protein (PI) of the **gonococcus**, which has  
limited antigenic variability. Two main subtypes, PIA and PIB, and  
nine main serotypes have been described. To avoid raising  
anti-protein III (PIII)-blocking antibodies and limit potential

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lipooligosaccharide toxicity, PI was chromatographically isolated with minimal PIII contamination (less than 1%) from Pgh 3-2 (PIB), a serum-sensitive **gonococcal** strain and UU1 (PIA), a serum-resistant **gonococcal** strain. Alum was used as an adjuvant and the antibodies raised in rabbits did not agglutinate the organisms, were not opsonic, and bactericidal titers were not increased. To present PI in a form **mimicking** its in vivo disposition, it was inserted into liposomes. The resulting antisera did agglutinate the organism and contained opsonic and bactericidal activity greater than the preimmune sera or alum-generated sera. The PIB liposome antisera also had higher ELISA titers to a synthetic peptide equivalent to an exposed portion of PIB and a higher percentage of antibodies absorbed by whole organisms than the PIB alum antisera. We speculate that when PI is presented in liposomes, the antibodies raised are mainly to surface-exposed **epitopes** of the protein as opposed to when PI is presented absorbed to alum, where the antibodies are produced mainly to buried **epitopes**

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DOC. NO. CPI:

TITLE:

C2002-128972  
Novel ovarian related polypeptides and  
polynucleotides, useful for treating  
cardiovascular, respiratory, reproductive, immune,  
endocrine, musculoskeletal and blood related  
disorders.

DERWENT CLASS:

INVENTOR(S):

PATENT ASSIGNEE(S):

B04 D16  
BARASH, S C; ROSEN, C A; RUBIN, S M  
(BARA-I) BARASH S C; (ROSE-I) ROSEN C A; (RUBI-I)  
RUBIN S M

COUNTRY COUNT:

PATENT INFORMATION:

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PATENT NO	KIND	DATE	WEEK	LA	PG
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APPLICATION DETAILS:

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AB US2002045230 A UPAB: 20021212

NOVELTY - An isolated ovarian related polypeptide (I) comprising amino acid sequence that is at least 90% identical to polypeptide fragment of any one of 58 sequences (PS) of defined amino acids as given in specification and having biological activity, polypeptide domain or **epitope** of PS, full-length protein of PS, or variant, allelic variant or species homolog of PS, is new.

DETAILED DESCRIPTION - An isolated ovarian related polypeptide (I) comprises an amino acid sequence that is at least 90% identical to a polypeptide fragment of PS containing amino acids such as 76, 309, 63, 55 and 70, or the encoded sequence contained in cDNA clone (D) ID fully given in specification or the encoded sequence included in (D) having biological activity, polypeptide domain or **epitope** of PS or encoded sequences included in (D), full-length protein of PS or encoded sequence included in (D), or variant, allelic variant or species homolog of PS.

INDEPENDENT CLAIMS are also included for the following:

- (1) an isolated antibody (II) that specifically binds to (I);
- (2) a recombinant host cell (III) that expresses (I);
- (3) preparation of (I);
- (4) a polypeptide produced by culturing (III) such that the polypeptide is expressed;
- (5) an isolated nucleic acid molecule (IV) comprising a polynucleotide having a nucleotide sequence that is at least 95% identical to:
  - (i) a polynucleotide fragment of any one of 58 fully defined polynucleotide sequence (NS) or a polynucleotide fragment of cDNA sequence included in (D) which is hybridizable to NS;
  - (ii) polynucleotide encoding (I), or (I) encoded by cDNA sequence included in (D) which is hybridizable to NS;
  - (iii) polynucleotide encoding a polypeptide fragment of a polypeptide encoded by NS or a fragment encoded by the cDNA sequence

included in (D) which is hybridizable to NS;

(iv) polynucleotide encoding a polypeptide domain or **epitope** of PS or polypeptide domain or **epitope** encoded by cDNA sequence included in (D) which is hybridizable to NS;

(v) polynucleotide encoding (I) or cDNA sequence included in (D), which is hybridizable to NS having biological activity;

(vi) polynucleotide which is a variant or an allelic variant of NS;

(vii) polynucleotide which encodes a species homologue of PS; or

(viii) a polynucleotide capable of hybridizing under stringent conditions to any one of above mentioned polynucleotides, where the polynucleotide does not hybridize under stringent conditions to a nucleic acid molecules having a nucleotide sequence of only A residues or of only T residues;

(6) a recombinant vector comprising (IV);

(7) making a recombinant host cell comprising (IV);

(8) a recombinant host cell (V) produced by the above method;

(9) a gene corresponding to cDNA sequence of PS;

(10) identifying an activity in a biological assay comprises expressing NS in a cell, isolating the supernatant, detecting an activity in a biological assay and identifying the protein in the supernatant having the activity; and

(11) a product produced by identifying a binding partner to (I).

**ACTIVITY** - Anti-tumor; cytostatic; antiallergic; antiinflammatory; nootropic; neuroprotective; antianemic; cardiant; immunosuppressive; antiparkinsonian; virucide; antibacterial; cerebroprotective; tuberculostatic; hemostatic; antiasthmatic; immunomodulator; immunostimulant; antirheumatic; antiarthritic; thyromimetic; antiarteriosclerotic; osteopathic; vulnerary; tranquilizer; antithyroid.

**MECHANISM OF ACTION** - Gene therapy; antibody-based therapy; modulator of (I). No biodata provided in the source material.

**USE** - (I) or (IV) is useful for preventing, treating, or ameliorating a medical condition in a mammalian subject. (I) and (IV) are also useful for diagnosing a pathological condition or a susceptibility to a pathological condition in a subject which involves determining the presence or absence of mutation in (IV) or determining the presence or amount of expression of (I) in a biological sample and diagnosing a pathological condition based on the result. (I) is useful for identifying a binding partner which involves contacting (I) with the binding partner and determining whether the binding partner affects the activity of (I) (claimed). (I) and (II) are useful for diagnosing, treating, inhibiting or preventing diseases, disorders or conditions associated with aberrant expression and/or activity of (I) such as neoplastic disorders (ovarian Krukenberg tumor, malignant mixed Mullerian tumors); hyperproliferative disorders (ovarian or breast cancer, adult acute lymphocytic leukemia); reproductive system disorders (**gonorrhea**, mumps, tuberculosis, syphilis, complications with pregnancy and labor). (I), (II) and (IV) are useful in immune system disorders (Chediak-Higashi's syndrome, neonatal neutropenia); autoimmune disorders (rheumatoid arthritis, Hashimoto's thyroiditis); diseases related to allergic reaction like asthma, anaphylaxis; inflammatory disorders (septic shock, sepsis); central nervous system disorders (multiple sclerosis, stroke); neurological



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disorders (Parkinson's disease, Alzheimer's disease, trauma); cardiovascular disorders (atherosclerosis, myocarditis); blood related disorders (anemias, idiopathic thrombocytopenic purpura, hemophilias); respiratory disorders (nonallergic rhinitis, tonsillitis, pneumonia); urinary system disorders; musculoskeletal disorders (osteoporosis, Paget's disease); wound healing; endocrine disorders such as Grave's disease; gastrointestinal disorders such as Crohn's disease and infectious diseases. (IV) is useful for chromosomal mapping and in controlling gene expression and in gene therapy. (I) and (II) are useful to provide immunological probes for differential identification of the tissue(s) or cell types and for immunophenotyping of cell lines and biological samples. (I) and (IV) are also useful as markers to indicate the presence or absence of an ovarian and/or breast disease or disorder, including cancer. (II) is useful for generating anti-idiotypic antibodies that **mimic** (I). (I) or (IV) is useful for drug screening and is also useful for maintaining organs before transplantation, for changing a mammal's physical or mental state and as a food additive or preservative.  
Dwg.0/0

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L21 7 SEA FILE=MEDLINE ABB=ON PLU=ON L16 AND L19

L21 ANSWER 1 OF 7 MEDLINE  
AN 1999034072 MEDLINE  
TI In-vitro activity of a novel penem, Men 10700, against meningococci and gonococci, and the effect of a cysteine-containing supplement.  
AU Hamilton-Miller J M; Shah S  
SO JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY, (1998 Oct) 42 (4) 553-5.  
Journal code: 7513617. ISSN: 0305-7453.

L21 ANSWER 2 OF 7 MEDLINE  
AN 92121065 MEDLINE  
TI Comparison of agar media used for determining antimicrobial susceptibility of Neisseria gonorrhoeae.  
AU Barry A L; Fuchs P C  
SO JOURNAL OF ANTIMICROBIAL CHEMOTHERAPY, (1991 Jul) 28 (1) 149-51.  
Journal code: 7513617. ISSN: 0305-7453.

L21 ANSWER 3 OF 7 MEDLINE  
AN 91131799 MEDLINE  
TI Binding of S protein by Neisseria gonorrhoeae and potential role in invasion.  
AU Arko R J; Chen C Y; Schalla W O; Sarafian S K; Taylor C L; Knapp J S; Morse S A  
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1991 Jan) 29 (1) 70-5.

Journal code: 7505564. ISSN: 0095-1137.

- AB An agglutination assay was used to examine the binding of purified human S protein (vitronectin, serum spreading factor) to 201 clinical isolates of *Neisseria gonorrhoeae*. Strains belonging to the protein IA serovars were significantly (P less than 0.001) more reactive in agglutination tests with human S protein and were more serum resistant than strains belonging to the protein IB serovars. The strains from patients with disseminated infections belonged predominantly to the IA serovar (19 of 23) and, with the exception of IA-4 and certain IB serovars, avidly agglutinated with S protein. The serovar IA-4 and IB strains isolated from joint or cerebrospinal fluid failed to agglutinate with S protein and appeared to be less serum resistant than most other IA isolates. Cysteine hydrochloride or 2-mercaptoethanol inhibited agglutination of S protein and a more than twofold increase in resistance to killing by fresh human serum following preincubation with S protein; the serum-sensitive parent strain did not agglutinate S protein, and serum resistance was not increased following preincubation with this protein. Binding of S protein by gonococci may represent a novel pathogenic mechanism that can contribute to serum resistance.

L21 ANSWER 4 OF 7 MEDLINE

AN 85070654 MEDLINE

TI Sulphur nutrition and metabolism in various species of *Neisseria*.

AU Le Faou A

SO ANNALES DE MICROBIOLOGIE, (1984 Jul-Aug) 135B (1) 3-11.

Journal code: 0354704. ISSN: 0300-5410.

- AB Most *Neisseria* strains are able to grow with sulphate as a unique source of sulphur. Nevertheless, a cysteine requirement was present in a few strains of *N. meningitidis* and in 30% of *N. flava* strains isolated in our laboratory. All strains of *N. gonorrhoeae* exhibited such a requirement. In every strain tested, the need for cysteine (which can be satisfied by thiosulphate) was linked to the lack of sulphite-reducing-activity. The implications of these findings for the taxonomy and identification of *Neisseria* are discussed.

L21 ANSWER 5 OF 7 MEDLINE

AN 83284638 MEDLINE

TI Induced changes in the surface of *Neisseria gonorrhoeae*.

AU Norrod E P; Burnham J S; Williams R P; Ding M J

SO CANADIAN JOURNAL OF MICROBIOLOGY, (1983 May) 29 (5) 584-92.

Journal code: 0372707. ISSN: 0008-4166.

- AB Growth of *Neisseria gonorrhoeae* strain F62 on medium containing pyruvate and a high ratio of cysteine to cystine resulted in functional and structural changes that are consistent with phenotypic changes in lipopolysaccharide. Both transparent (O-) and moderately opaque (O+) variants became more sensitive to killing by normal human serum and resistant to killing by pyocin G, a bacteriocin from *Pseudomonas aeruginosa*. Electrophoresis of outer membranes in the presence of sodium dodecyl sulfate demonstrated differences also dependent upon the growth medium. When gels were treated with periodic acid and stained with silver, lanes containing outer membranes obtained after growth in the modified medium demonstrated two bands in addition to those independent of the growth medium. The enhancement of these additional bands by periodate treatment indicated that they represent material containing carbohydrate. The mechanism by which the changes in the growth medium affected the surface of *N. gonorrhoeae* is not known;

however, the changes demonstrated by electrophoresis were dependent upon either the high concentration of cysteine or the high ratio of cysteine to cystine.

L21 ANSWER 6 OF 7 MEDLINE  
 AN 83102569 MEDLINE  
 TI Phenotypic changes in colonial morphology of *Neisseria gonorrhoeae*.  
 AU Norrod E P; Williams R P  
 SO CANADIAN JOURNAL OF MICROBIOLOGY, (1982 Nov) 28 (11) 1265-72.  
 Journal code: 0372707. ISSN: 0008-4166.  
 AB Phenotypic changes in the colonial morphology of four opacity variants of *Neisseria gonorrhoeae* strain F62 occurred upon growth in the presence of 14 mM pyruvate. Each of the naturally occurring opacity variants, a transparent, an opaque, and two deeply opaque, became more opaque; in addition, colonies of the opaque variants became rougher. Pyruvate did not appear to have a direct function in these colonial changes. Its effects were due to the ability of pyruvate to retard the oxidation of cysteine that was added to the medium in a defined supplement. Sodium dodecyl sulfate--polyacrylamide gel electrophoresis (SDS-PAGE) of outer membranes showed that the opacity-associated proteins of the naturally occurring variants were not affected by growth in the presence of pyruvate; therefore, the induced opacity changes appear to have another basis. However, other proteins were affected. SDS-PAGE of the outer membranes, as well as of cell fractions composed predominantly of cytosol and of cytoplasmic membranes, revealed quantitative differences in the protein profiles after growth in the presence of pyruvate of each variant.

L21 ANSWER 7 OF 7 MEDLINE  
 AN 76190452 MEDLINE  
 TI Effect of types of media on the production of acid from glucose by so-called glucose-negative strains of *Neisseria gonorrhoeae*.  
 AU Baron E S; Saz A K  
 SO JOURNAL OF CLINICAL MICROBIOLOGY, (1976 Mar) 3 (3) 330-3.  
 Journal code: 7505564. ISSN: 0095-1137.  
 AB Typical gonococci metabolize glucose; however, occasional strains of *Neisseria gonorrhoeae* fail to metabolize glucose when tested on cystine Trypticase agar (CTA) medium, a fact that leads to delay in identification. Certain strains of so-called glucose-negative *N. gonorrhoeae* do indeed metabolize glucose, depending on the medium used in testing for metabolism of the carbohydrate. Six strains were tested that failed to oxidize glucose with the production of acid when tested on standard CTA medium, yet all produced acid from glucose when supplemented GC medium with a phenol red indicator was utilized. An attempt was made to single out the compound present in CTA that leads to inhibition of metabolism and, occasionally, growth as well. We found that certain ratios of the cystine and Na<sub>2</sub>SO<sub>3</sub> concentrations are inhibitory, including that ratio of the two compounds present in CTA medium; however, L-cysteine, when included in similar concentrations, did not inhibit the metabolic reaction.

(FILE 'HCAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC, PHIN, TOXCENTER' ENTERED AT 11:42:45 ON 11 FEB 2003)

L22 1952 SEA ABB=ON PLU=ON "RICE P"?/AU  
 L23 1605 SEA ABB=ON PLU=ON "GULATI S"?/AU  
 L24 9 SEA ABB=ON PLU=ON "NGAMPASUTADOL J"?/AU  
 L25 5 SEA ABB=ON PLU=ON L22 AND L23 AND L24

- Author (S)

09/699224

L26 119 SEA ABB=ON PLU=ON L22 AND (L23 OR L24)  
L27 5 SEA ABB=ON PLU=ON L23 AND L24  
L28 253 SEA ABB=ON PLU=ON (L26 OR L22 OR L23 OR L24) AND  
(GONOCOCC? OR GONORRH?)  
L29 10 SEA ABB=ON PLU=ON L28 AND (PEPTIDOMIMET? OR MIMETIC?  
OR MIMEOTOP? OR MIMIC?)  
~~L30~~ 11 SEA ABB=ON PLU=ON L25 OR L27 OR L29  
~~L31~~ 6 DUP REM L30 (5 DUPLICATES REMOVED)

L31 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2002:822585 HCAPLUS  
TITLE: Peptide **mimic** elicits bactericidal  
antibody response against an oligosaccharide  
epitope of neisseria **gonorrhoeae**  
AUTHOR(S): **Ngampasutadol, Jutamas**  
CORPORATE SOURCE: Boston Univ., Boston, MA, USA  
SOURCE: (2002) 220 pp. Avail.: UMI, Order No. DA3043318  
From: Diss. Abstr. Int., B 2002, 63(2), 729  
DOCUMENT TYPE: Dissertation  
LANGUAGE: English  
AB Unavailable

L31 ANSWER 2 OF 6 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.  
ACCESSION NUMBER: 2002:597429 BIOSIS  
DOCUMENT NUMBER: PREV200200597429  
TITLE: Complement regulatory proteins attenuate the  
functional effect of antibody elicited by a  
gonococcal vaccine candidate.  
AUTHOR(S): **Ngampasutadol, Jutamas (1); Gulati,**  
**Sunita (1); Ram, Sanjay (1); Rice, Peter A.**  
**(1)**  
CORPORATE SOURCE: (1) Boston University School of Medicine, Boston, MA  
USA  
SOURCE: International Immunopharmacology, (August, 2002) Vol.  
2, No. 9, pp. 1336. <http://www.elsevier.com/locate/itimp>. print.  
Meeting Info.: XIX International Complement Workshop  
Palermo, Italy September 22-26, 2002  
ISSN: 1567-5769.  
DOCUMENT TYPE: Conference  
LANGUAGE: English

L31 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2003 ACS DUPLICATE 1  
ACCESSION NUMBER: 2001:338560 HCAPLUS  
DOCUMENT NUMBER: 134:352269  
TITLE: Peptide **mimics** of conserved  
**gonococcal** epitopes and methods and  
compositions using them  
INVENTOR(S): **Rice, Peter A.; Ngampasutadol,**  
**Jutamas; Gulati, Sunita**  
PATENT ASSIGNEE(S): USA  
SOURCE: PCT Int. Appl., 57 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

09/699224

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001032692	A2	20010510	WO 2000-US29749	20001027
WO 2001032692	A3	20020307		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 1999-162491P P 19991029

AB The present invention relates to peptide **mimics** of a conserved **gonococcal** epitope of Neisseria **gonorrhoeae**, which epitope is not found on human blood group antigens. This invention also relates to methods and compns. using such peptide **mimics** for the prophylaxis of **gonorrheal** infections.

L31 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2003 ACS DUPLICATE 2  
ACCESSION NUMBER: 2001:880528 HCAPLUS  
DOCUMENT NUMBER: 136:367943  
TITLE: Strategies for **mimicking** neisserial saccharide epitopes as vaccines  
AUTHOR(S): **Gulati, Sunita; Ngampasutadol, Jutamas; Yamasaki, Ryohei; McQuillen, Daniel P.; Rice, Peter A.**  
CORPORATE SOURCE: Evans Biomedical Research Center, Department of Medicine, Boston University, Boston, MA, USA  
SOURCE: International Reviews of Immunology (2001), 20(2), 229-250  
CODEN: IRIMEH; ISSN: 0883-0185  
PUBLISHER: Harwood Academic Publishers  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English

AB A review. Monoclonal antibody (mAb) 2C7 recognizes a conserved and widely expressed oligosaccharide (OS) epitope on Neisseria **gonorrhoeae**. This OS epitope evokes a significant bactericidal and opsonic immune response after natural infection and vaccination. The OS epitope structure represents an excellent target for a potential protective **gonococcal** vaccine. Because carbohydrate antigens are T-cell independent, inducing weak antibody responses, OS mols. are not useful immunogens. We developed and examd. two different strategies to **mimic** the 2C7 OS epitope: (i) an anti-idiotope (mAb CA1); and (ii) a peptide (PEP-1). These surrogate immunogens elicited antibody responses in mice (CA1 and PEP-1) and rabbits (CA1) that were bactericidal in vitro against **gonococci**. Both CA1 and PEP-1 are true immunol. **mimics** of OS and may form a basis for the development of vaccine candidates for human immunization against N. **gonorrhoeae**.

REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

09/699224

L31 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2003 ACS DUPLICATE 3  
ACCESSION NUMBER: 1997:37669 HCAPLUS  
DOCUMENT NUMBER: 126:73546  
TITLE: Experimental immunization with a monoclonal  
anti-idiotope antibody that **mimics** the  
**Neisseria gonorrhoeae**  
lipooligosaccharide epitope 2C7  
AUTHOR(S): **Gulati, Sunita**; McQuillen, Daniel P.;  
Sharon, Jacqueline; **Rice, Peter A.**  
CORPORATE SOURCE: Maxwell Finland Laboratory for Infectious  
Diseases, Department of Medicine, Boston Medical  
Center, Boston, MA, 02118, USA  
SOURCE: Journal of Infectious Diseases (1996), 174(6),  
1238-1248  
CODEN: JIDIAQ; ISSN: 0022-1899  
PUBLISHER: University of Chicago Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB An anti-idiotope monoclonal antibody (MAb), called CA1 (Ab2), was  
produced in mice against MAb 2C7, which recognizes widely in  
vivo-expressed **gonococcal** lipooligosaccharide (LOS)  
epitope. Mice immunized with MAb CA1 initially had a 2.5-fold  
increase in IgG (12-fold after a booster) but no increase in IgM  
anti-LOS (Ab1') antibody. Control mice immunized with LOS had a  
4.5-fold rise in IgG and 4-fold rise in IgM anti-LOS antibody. In  
rabbits, MAb CA1 elicited a 9-fold rise in IgG and a 3.3-fold rise  
in IgM anti-LOS (Ab1') antibody. Ab1' antibody bactericidal  
activity was 1-2 logs greater than that produced by immunization  
with LOS. Ab1' mediated complete human polymorphonuclear leukocyte  
phagocytosis of 2C7 epitope-pos. (but not 2C7 epitope-neg.)  
**gonococci**. MAb CA1 acts as a mol. surrogate (Ab2.beta.) for  
the nominal LOS antigen and may form the basis for vaccine  
candidates for human immunization against **N. gonorrhoeae**.

L31 ANSWER 6 OF 6 WPIDS (C) 2003 THOMSON DERWENT  
ACCESSION NUMBER: 1994-332827 [41] WPIDS  
DOC. NO. NON-CPI: N1994-261272  
DOC. NO. CPI: C1994-151346  
TITLE: New anti-idiotypic monoclonal antibody  
**mimicking** **Neisseria gonorrhoeae**  
epitope - on oligosaccharide, and cells producing  
them, useful in prevention, treatment and diagnosis  
of **gonorrhoea**.  
DERWENT CLASS: B04 D16 S03  
INVENTOR(S): **GULATI, S**; MCQUILLEN, D P; **RICE, P**  
**A**  
PATENT ASSIGNEE(S): (HEAL-N) HEALTH & HOSPITALS CITY BOSTON; (GULA-I)  
GULATI S; (MCQU-I) MCQUILLEN D P; (RICE-I) RICE P A  
COUNTRY COUNT: 55  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9422479	A1	19941013	(199441)*	EN	90
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
W: AT AU BB BG BR BY CA CH CN CZ DE DK ES FI GB GE HU JP KG KP					
KR KZ LK LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK					
TJ TT UA UZ VN					

Searcher : Shears 308-4994

09/699224

AU 9465304 A 19941024 (199505)  
 US 5476784 A 19951219 (199605) 31  
 EP 695192 A1 19960207 (199610) EN  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT :  
 CN 1124456 A 19960612 (199747)  
 NZ 265000 A 19971219 (199807)  
 SG 48816 A1 19980518 (199834)  
 AU 698908 B 19981112 (199906)  
 US 5888509 A 19990330 (199920)  
 US 5939067 A 19990817 (199939)  
 US 6074641 A 20000613 (200035)  
 US 6099839 A 20000808 (200040)  
 EP 695192 B1 20010228 (200113) EN  
 R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE  
 DE 69426767 E 20010405 (200126)

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9422479	A1	WO 1994-US3794	19940406
AU 9465304	A	AU 1994-65304	19940406
US 5476784	A	US 1993-43663	19930406
EP 695192	A1	EP 1994-912962	19940406
		WO 1994-US3794	19940406
CN 1124456	A	CN 1994-192217	19940406
NZ 265000	A	NZ 1994-265000	19940406
		WO 1994-US3794	19940406
SG 48816	A1	SG 1996-1965	19940406
AU 698908	B	AU 1994-65304	19940406
US 5888509	A Div ex	US 1993-43663	19930406
	Cont of	US 1995-486722	19950607
		US 1997-915304	19970819
US 5939067	A Cont of	US 1993-43663	19930406
	Cont of	US 1995-487414	19950607
		US 1997-908768	19970808
US 6074641	A Cont of	US 1993-43663	19930406
	Cont of	US 1995-486722	19950607
	Cont of	US 1997-915304	19970819
		US 1999-280216	19990329
US 6099839	A Cont of	US 1993-43663	19930406
	Cont of	US 1995-487414	19950607
	Cont of	US 1997-908768	19970808
		US 1999-337900	19990621
EP 695192	B1	EP 1994-912962	19940406
		WO 1994-US3794	19940406
DE 69426767	E	DE 1994-626767	19940406
		EP 1994-912962	19940406
		WO 1994-US3794	19940406

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9465304	A Based on	WO 9422479
EP 695192	A1 Based on	WO 9422479
NZ 265000	A Based on	WO 9422479
AU 698908	B Previous Publ.	AU 9465304

09/699224

		Based on	WO 9422479
US 5888509	A	Div ex	US 5476784
US 5939067	A	Cont of	US 5476784
US 6074641	A	Cont of	US 5476784
		Cont of	US 5888509
US 6099839	A	Cont of	US 5476784
		Cont of	US 5939067
EP 695192	B1	Based on	WO 9422479
DE 69426767	E	Based on	EP 695192
		Based on	WO 9422479

PRIORITY APPLN. INFO: US 1993-43663 19930406; US 1995-486722  
19950607; US 1997-915304 19970819; US  
1995-487414 19950607; US 1997-908768  
19970808; US 1999-280216 19990329; US  
1999-337900 19990621

AN 1994-332827 [41] WPIDS

AB WO 9422479 A UPAB: 19941206

Anti-idiotypic monoclonal antibody (Ab2), or its fragments, with an antibody binding site specific for the isotype of second antibody (Ab2) which bonds to an oligosaccharide epitope of *Nisseria gonorrhoeae* (N.g.) that is not present in human blood gp. antigens is new. Also claimed are cells that produce Ab2 and its fragments.

Ab1 binds to an epitope recognised by monoclonal antibody 2C7. Ab2 is esp. produced by hybridoma ATCC HB11311, but may also be a recombinant, opt. chimeric or humanised, antibody. To detect infection, a test sample is incubated with immobilised anti-Ig antibodies, then with labelled Ab2, followed by washing and detection of bound label.

USE - Ab2 is used to prevent (vaccination) and diagnose N.g. infections, while anti-anti-idiotypic antibodies (Ab3) raised against Ab2 can be used for treatment and diagnosis. In particular Ab2 is used to prevent **gonococcal** salpingitis and to prevent transmission by asymptomatic hosts. Ab2 or Ab3 are administered at 0.1-10 (pref. 1) mg/kg, one or twice a day for 1 week, partic. intravenously.

Mice were immunised intraperitoneally with 10 microg Ab2 and a second injection given 14 days later. The fig. shows that a strong Ab3 (IgG; anti-LOS) response was induced as detected by ELISA, i.e. 12 times higher than the preimmunisation titre 21 days after immunisation. LOs induced a weaker response (4.5 times the preimmunisation titre). Ab2 did not produce an IgM anti-LOS response, although LOS did (briefly).

Dwg.2/15

ABEQ US 5476784 A UPAB: 19960205

An anti-idiotypic monoclonal antibody, or binding fragment thereof, characterized by an antigen combining site which immunospecifically binds to the idiotype of a second antibody which binds to an oligosaccharide epitope of *N. gonorrhoeae*, which oligosaccharide epitope is not present in human blood gp. antigens, wherein the oligosaccharide epitope specifically binds to monoclonal antibody 2C7 produced by hybridoma HB-11859.

Dwg.0/15

=> fil hom

FILE 'HOME' ENTERED AT 11:45:26 ON 11 FEB 2003



09/699224

(FILE 'HCAPLUS' ENTERED AT 11:59:23 ON 11 FEB 2003)  
L33 1176 SEA FILE=HCAPLUS ABB=ON PLU=ON C(W)TERMIN? AND  
(PEPTIDOMIMET? OR MIMETIC? OR MIMETOP? OR MIMIC?)  
L34 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L33 AND (GONORRH? OR  
GONOCOCC?)

-key terms

L35 1 S L34 NOT L7

L35 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1995:956877 HCAPLUS  
DOCUMENT NUMBER: 124:47219  
TITLE: Identification of the **gonococcal** glmU  
gene encoding the enzyme N-acetylglucosamine  
1-phosphate uridyltransferase involved in the  
synthesis of UDP-GlcNAc  
AUTHOR(S): Ullrich, Joachim; van Putten, Jos P. M.  
CORPORATE SOURCE: Max-Planck-Inst. Biol., Tuebingen, 72076,  
Germany  
SOURCE: Journal of Bacteriology (1995), 177(23), 6902-9  
CODEN: JOBAA; ISSN: 0021-9193  
PUBLISHER: American Society for Microbiology  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB In searching for the **gonococcal** sialyltransferase gene(s),  
the authors cloned a 3.8-kb DNA fragment from **gonococcus**  
strain MS11 that hybridized with the oligonucleotide JU07, which was  
derived from the conserved **C terminus** of the  
sialyl motif present in mammalian sialyltransferases. Sequencing of  
the fragment revealed four putative open reading frames (ORFs), one  
of which (ORF-1) contained a partial sialyl motif including the  
amino acid sequence VGSKT, which is highly conserved among  
sialyltransferases. The gene was flanked by two inverted repeats  
contg. the neisserial DNA uptake sequence and was preceded by a  
putative .sigma.54 promoter. Database searches, however, revealed a  
high degree of homol. between ORF-1 and the N-acetylglucosamine  
1-phosphate uridyltransferase (GlmU) of Escherichia coli and  
Bacillus subtilis and not with any known sialyl-transferase. This  
homol. was further established by the successful complementation of  
an orf-1 mutation by the E. coli glmU gene. Enzyme assays  
demonstrated that ORF-1 did not possess sialyltransferase activity  
but **mimicked** GlmU function catalyzing the conversion of  
N-acetylglucosamine 1-phosphate into UDP-N-acetylglucosamine, which  
is a key metabolite in the syntheses of lipopolysaccharide,  
peptidoglycan, and sialic acids.

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, JICST-EPLUS, JAPIO, PHIC,  
PHIN, TOXCENTER' ENTERED AT 12:01:54 ON 11 FEB 2003)

L36 5 S L34  
L37 4 S L36 NOT (L8 OR L14)  
L38 1 DUP REM L37 (3 DUPLICATES REMOVED)

L38 ANSWER 1 OF 1 MEDLINE DUPLICATE 1  
ACCESSION NUMBER: 96074321 MEDLINE  
DOCUMENT NUMBER: 96074321 PubMed ID: 7592484  
TITLE: Identification of the **gonococcal** glmU gene  
encoding the enzyme N-acetylglucosamine 1-phosphate  
uridyltransferase involved in the synthesis of

09/699224

UDP-GlcNAc.  
AUTHOR: Ullrich J; van Putten J P  
CORPORATE SOURCE: Max-Planck-Institut fur Biologie, Abteilung  
Infektionsbiologie, Tübingen, Germany.  
SOURCE: JOURNAL OF BACTERIOLOGY, (1995 Dec) 177 (23) 6902-9.  
Journal code: 2985120R. ISSN: 0021-9193.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
OTHER SOURCE: GENBANK-Z50023  
ENTRY MONTH: 199512  
ENTRY DATE: Entered STN: 19960124  
Last Updated on STN: 19960124  
Entered Medline: 19951226

AB In searching for the **gonococcal** sialyltransferase gene(s), we cloned a 3.8-kb DNA fragment from **gonococcus** strain MS11 that hybridized with the oligonucleotide JU07, which was derived from the conserved **C terminus** of the sialyl motif present in mammalian sialyltransferases. Sequencing of the fragment revealed four putative open reading frames (ORFs), one of which (ORF-1) contained a partial sialyl motif including the amino acid sequence VGSKT, which is highly conserved among sialyltransferases. The gene was flanked by two inverted repeats containing the neisserial DNA uptake sequence and was preceded by a putative sigma 54 promoter. Database searches, however, revealed a high degree of homology between ORF-1 and the N-acetylglucosamine 1-phosphate uridyltransferase (GlmU) of *Escherichia coli* and *Bacillus subtilis* and not with any known sialyltransferase. This homology was further established by the successful complementation of an orf-1 mutation by the *E. coli* glmU gene. Enzyme assays demonstrated that ORF-1 did not possess sialyltransferase activity but **mimicked** GlmU function catalyzing the conversion of N-acetylglucosamine 1-phosphate into UDP-N-acetylglucosamine, which is a key metabolite in the syntheses of lipopolysaccharide, peptidoglycan, and sialic acids.

=> fil hom

FILE 'HOME' ENTERED AT 12:03:33 ON 11 FEB 2003